

1814/435/6

FIG. 1

Walsh
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| | |
|---|-----|
| GAATTCGGAG GAATTATTCG AACCATAAAC ACATATAACA ATTTCAGTAG TTGCGGCACA | 60 |
| CACACACACA CACAGCCCGT GCATTATTAC ACTAAAGCG ACACACATC CAAAAATCA | 120 |
| GCACAAAAA CATCAATAAA C ATG CAT TCG ATT AAA TGT TTA TTA ACA GCA | 171 |
| Met His Trp Ile Lys Cys Leu Leu Thr Ala | 10 |
| TTC ATT TCG TTC ACA GTC ATC GTC CAG GTT CAC ACT TCC CGC AGC TTT | 219 |
| Phe Ile Cys Phe Thr Val Ile Val Gln Val His Ser Ser Gly Ser Phe | 25 |
| CAG TTG CGC CTC AAC TAC TTC ACC AAC CAT CAC CGC CGG CAC AAC CAG | 267 |
| Glu Leu Arg Leu Lys Tyr Phe Ser Asn Asp His Gly Arg Asp Asn Glu | 40 |
| GGT CGC TCG TCG ACC GCG CAG TCG GAC GGA CGC ACC GCG AAC TCG CTC | 315 |
| Gly Arg Cys Cys Ser Gly Glu Ser Asp Gly Ala Thr Gly Lys Cys Leu | 55 |
| CCC ACC TCG AAC ACC CGC TTT CGC GTC TCG CTA AAC CAC TAC CAG GCG | 363 |
| Gly Ser Cys Lys Thr Arg Phe Arg Val Cys Leu Lys His Tyr Gln Ala | 70 |
| ACC ATC GAC ACC ACC TCC CAG TCG ACC TAC GGC CAC CTC ATC ACC CCC | 411 |
| Thr Ile Asp Thr Thr Ser Gln Cys Thr Tyr Gly Asp Val Ile Thr Pro | 90 |
| ATT CTC GGC CAG AAC TCG GTC AAT CTC ACC CAC CCC CAG CGC TTC CAG | 459 |
| Ile Leu Gly Glu Asn Ser Val Asn Leu Thr Asp Ala Gln Arg Phe Gln | 105 |
| AAC AAC GGC TTC ACC AAT CCC ATC CAG TTC CCC TTC TCG TTC TCA TCG | 507 |
| Asn Lys Gly Phe Thr Asn Pro Ile Gln Phe Pro Phe Ser Phe Ser Trp | 120 |
| CCG GGT ACC TTC TCG CTC ATC GTC GAG CCC TCG CAT CAT ACC AAC AAT | 555 |
| Pro Gly Thr Phe Ser Leu Ile Val Glu Ala Trp His Asp Thr Asn Asn | 135 |
| AGC GCG AAT GCG CGA ACC AAC AAG CTC CTC ATC CAG CGA CTC TTG GTC | 603 |
| Ser Gly Asn Ala Arg Thr Asn Lys Leu Leu Ile Gln Arg Leu Leu Val | 150 |
| CAC CAG GTA CTC GAG GTC TCC TCC GAA TCG AAC ACC AAC AAC TCG GAA | 651 |
| Gln Gln Val Leu Glu Val Ser Ser Glu Trp Lys Thr Asn Lys Ser Glu | 160 |
| TCC CAG TAC ACC TCG CTC GAG TAC CAT TTC CGT GTC ACC TCG CAT CTC | 699 |
| Ser Gln Tyr Thr Ser Leu Glu Tyr Asp Phe Arg Val Thr Cys Asp Leu | 185 |
| AAC TAC TAC GGA TCC GGC TGT CCC AAG TTC TCG CGC CCC CGC CAC CAT | 747 |
| Asn Tyr Tyr Gly Ser Gly Cys Ala Lys Phe Cys Arg Pro Arg Asp Asp | 195 |
| TCA TTT GGA CAC TCG ACT TCG TCG GAG ACC GGC GAA ATT ATC TGT TTG | 795 |
| Ser Phe Gly His Ser Thr Cys Ser Glu Thr Gly Glu Ile Ile Cys Leu | 205 |
| ACC GGA TCG CAG GCG CAT TAC TGT CAC ATA CCC AAA TCG GCG AAA GCG | 843 |
| Thr Gly Trp Gln Gly Asp Tyr Cys His Ile Pro Lys Cys Ala Lys Gly | 220 |
| TGT GAA CAT GGA CAT TCG CAC AAA CCC AAT CAA TCG GTT TCG CAA CTC | 891 |
| Cys Glu His Gly His Cys Asp Lys Pro Asn Gln Cys Val Cys Gln Leu | 235 |
| | 240 |
| | 245 |
| | 250 |

FIG. 1 CONT'D.

| | |
|---|------|
| CGC TGG AAC GGA GCC TGC TGC AAC CAG TGC GTT CTC GAA CCG AAC TGC Gly Trp Lys Gly Ala Leu Cys Asn Glu Cys Val Leu Glu Pro Asn Cys 255 260 265 | 939 |
| ATC CAT GCC ACC TGC AAC AAA CCC TGC ACT TGC ATC TGC AAC CAG GGT Ile His Gly Thr Cys Asn Lys Pro Trp Thr Cys Ile Cys Asn Glu Gly 270 275 280 | 987 |
| TGG GGA GCC TGC TAC TGC AAC CAG CAT CTC AAC TAC TGC ACC AAC CAG Trp Gly Gly Leu Tyr Cys Asn Glu Asp Leu Asn Tyr Cys Thr Asn His 285 290 295 | 1035 |
| AGA CCC TGC AAC AAT GCC GGA ACC TGC TTC AAC ACC GCC CAG GGA TTC Arg Pro Cys Lys Asn Gly Gly Thr Cys Phe Asn Thr Gly Glu Gly Leu 300 305 310 | 1083 |
| TAC ACA TGC AAA TGC GGT CCA GGA TAC AGT GGT CAT CAT TGC GAA AAT Tyr Thr Cys Lys Cys Ala Pro Gly Tyr Ser Gly Asp Asp Cys Glu Asn 315 320 325 330 | 1131 |
| CAG ATC TAC TGC TGC GAT GCC GAT CTC AAT CCC TGC CAG AAT GGT GGT Glu Ile Tyr Ser Cys Asp Ala Asp Val Asn Pro Cys Glu Asn Gly Gly 335 340 345 | 1179 |
| ACC TGC ATC GAT CAG CCC CAG ACA AAA ACC GCC TAC AAC TGT CAT TGC Thr Cys Ile Asp Glu Pro His Thr Lys Thr Gly Tyr Lys Cys His Cys 350 355 360 | 1227 |
| CCC AAC GCC TGC ACC GGA AAC ATC TGC CAG CAG AAA GTC CTC ACC TGT Ala Asn Gly Trp Ser Gly Lys Met Cys Glu Glu Lys Val Leu Thr Cys 365 370 375 | 1275 |
| TGC CAG AAA CCC TGT CAT CAG GGA ATC TGC CCC AAC GTT GGT GGT GCC Ser Asp Lys Pro Cys His Gln Gly Ile Cys Arg Asn Val Arg Pro Gly 380 385 390 | 1323 |
| TTC GGA ACC AAC GGT CAG GCC TAC CAG TGC GAA TGT CCC ATT GCC TAC Leu Gly Ser Lys Gly Gln Gly Tyr Gln Cys Glu Cys Pro Ile Gly Tyr 395 400 405 410 | 1371 |
| AGC GGA CCC AAC TGC GAT CTC CAG CTC CAG AAC TGC AGT CCC AAT CCA Ser Gly Pro Asn Cys Asp Leu Gln Leu Asp Asn Cys Ser Pro Asn Pro 415 420 425 | 1419 |
| TGC ATA AAC GGT GGA ACC TGT CAG CCC ACC GGA AAC TGT ATT TGC CCA Cys Ile Asn Gly Gly Ser Cys Gln Pro Ser Gly Lys Cys Ile Cys Pro 430 435 440 | 1467 |
| CGC GGA TTT TGC GGA ACC AGA TGC CAG ACC AAC ATT CAG CAT TGT CTT Ala Gly Phe Ser Gly Thr Arg Cys Glu Thr Asn Ile Asp Asp Cys Leu 445 450 455 | 1515 |
| GGC CAG CAG TGC CAG AAC GGA GCC ACC TGC ATA CAT ATG GTC AAC CAA Gly His Gln Cys Glu Asn Gly Gly Thr Cys Ile Asp Met Val Asn Gln 460 465 470 | 1563 |
| TAT CCC TGC CAA TGC GTT CCC GGT TTC CAT GCC ACC CAG TGT AGT ACC Tyr Arg Cys Gln Cys Val Pro Gly Phe His Gly Thr His Cys Ser Ser 475 480 485 490 | 1611 |
| AAA GTT GAC TTG TGC CTC ATC AGA CCG TGT GCC AAT GGA GGA ACC TGC Lys Val Asp Leu Cys Leu Ile Arg Pro Cys Ala Asn Gly Gly Thr Cys 495 500 505 | 1659 |
| TTC AAT CTC AAC AAC CAT TAC CAG TGC ACC TGT GGT GCC GGA TTT ACT Leu Asn Leu Asn Asn Asp Tyr Gln Cys Thr Cys Arg Ala Gly Phe Thr 510 515 520 | 1707 |

FIG. 1 CONT'D.

| | |
|---|------|
| GCC AAC GAT TGC TCT GTG GAC ATC GAT CAG TGC AGC AGT GGA CCC TGT Gly Lys Asp Cys Ser Val Asp Ile Asp Glu Cys Ser Ser Gly Pro Cys 525 530 535 | 1755 |
| CAT AAC GGC GGC ACT TGC ATG AAC CCG GTC AAT TCG TTC GAA TCC GTG His Asn Gly Gly Thr Cys Met Asn Arg Val Asn Ser Phe Glu Cys Val 540 545 550 | 1803 |
| TGT GCC AAT GGT TTC ACC GGC AAC CAG TGC GAT CAG CAG TCC TAC GAT Cys Ala Asn Gly Phe Arg Gly Lys Glu Cys Asp Glu Glu Ser Tyr Asp 555 560 565 570 | 1851 |
| TCG GTG ACC TTC GAT GCC CAC CAA TAT GGA CCG ACC ACA CAA CCG ACA Ser Val Thr Phe Asp Ala His Glu Tyr Gly Ala Thr Thr Glu Ala Arg 575 580 585 | 1899 |
| GCC GAT GGT TTG ACC AAT GCC CAG CTA GTC CTA ATT GCT GTT TTC TCC Ala Asp Gly Leu Thr Asn Ala Glu Val Val Leu Ile Ala Val Phe Ser 590 595 600 | 1947 |
| GTT GCG ATG CCT TTG GTG CCG GTT ATT CCG CCG TCC GTG GTG TTC TGC Val Ala Met Pro Leu Val Ala Val Ile Ala Ala Cys Val Val Phe Cys 605 610 615 | 1995 |
| ATG AAC CCG AAC CGT AAC CGT GGT CAG GAA AAG CAC CAC CCG CAG CCC Met Lys Arg Lys Arg Lys Arg Ala Glu Glu Lys Asp Asp Ala Glu Ala 620 625 630 | 2043 |
| AGG AAC CAG AAC GAA CAG AAT CCG GTG GCC ACA ATG CAT CAC AAT GGC Arg Lys Glu Asn Glu Glu Asn Ala Val Ala Thr Met His His Asn Gly 635 640 645 650 | 2091 |
| AGT GCG GTG GGT CTA GCT TTG GCT TCA GCC TCT CTC GCG CCG AAA ACT Ser Gly Val Gly Val Ala Leu Ala Ser Ala Ser Leu Gly Gly Lys Thr 655 660 665 | 2139 |
| GCC AGC AAC ACC GGT CTC ACC TTC GAT GCG GCG AAC CCG AAT ATC ATC Gly Ser Asn Ser Gly Leu Thr Phe Asp Gly Gly Asn Pro Asn Ile Ile 670 675 680 | 2187 |
| AAA AAC ACC TCG GAC AAG TCG GTC AAC AAC ATT TGT GCC TCA GCA GCA Lys Asn Thr Trp Asp Lys Ser Val Asn Asn Ile Cys Ala Ser Ala Ala 685 690 695 | 2235 |
| GCA GCG CCG CCG CCG GCA GCA GCG CCG CAG CAG TGT CTC ATG TAC GGC Ala Ala Ala Ala Ala Ala Ala Ala Asp Glu Cys Leu Met Tyr Gly 700 705 710 | 2283 |
| GGA TAT GTG GCC TCG GTG GCG GAT AAC AAC AAT GCC AAC TCA GAC TTT Gly Tyr Val Ala Ser Val Ala Asp Asn Asn Asn Ala Asn Ser Asp Phe 715 720 725 730 | 2331 |
| TGT GTG GGT CCG CTA CAA AGA GCC AAG TCG CAA AAG CAA CTC AAC ACC Cys Val Ala Pro Leu Glu Arg Ala Lys Ser Glu Lys Glu Leu Asn Thr 735 740 745 | 2379 |
| CAT CCC ACC CTC ATG CAC CCG GGT TCG CCG GCA GCG AGC TCA GCC AAC Asp Pro Thr Leu Met His Arg Gly Ser Pro Ala Gly Ser Ser Ala Lys 750 755 760 | 2427 |
| GGA GCG TCT GCG GGA GGA CCG GGA CCG CAG GCG AAG AGC ATC TCT Gly Ala Ser Gly Gly Gly Pro Gly Ala Ala Glu Gly Lys Arg Ile Ser 765 770 775 | 2475 |
| GTT TTA GCC CAG GGT TCC TAC TGT AGC CAG CGT TCG CCC TCG TTG CCG Val Leu Gly Glu Gly Ser Tyr Cys Ser Glu Arg Trp Pro Ser Leu Ala 780 785 790 | 2523 |

| | |
|--|------|
| CGC GCG GGA GTC GCC GGA CCC TGT TCA TCC CAG CTA ATC GCT GCA GCT | 2571 |
| Ala Ala Gly Val Ala Gly Ala Cys Ser Ser Gln Leu Met Ala Ala | |
| 795 800 805 810 | |
| TCG GCA GCG GGC ACC GCA GCG GGG ACC GCG CAA CAG CAG CGA TCC GTC | 2619 |
| Ser Ala Ala Gly Ser Gly Ala Gly Thr Ala Gln Gln Gln Arg Ser Val | |
| 815 820 825 | |
| GTC TGC GGC ACT CCG CAT ATG TAACTCCAAA AATCCCGAAG GCGTCCTGCT | 2670 |
| Val Cys Gly Thr Pro His Met | |
| 830 | |
| AAATCCCGAG AATCCCGCAT CGAGGAGCTG ACAGCACATA CACAAACAAA AGACTGGGTT | 2730 |
| GGGTTCAAAA TGTGAGAGAG ACCCCAAAAAT GTTGTTTGTTG ATTGAAGCAG TTTAGTCGTC | 2790 |
| ACGAAAAAATG AAAAAATCTGT AACACGCCATA ACTCGTAAAC TCCCTAAAAA ATTTGTATAG | 2850 |
| TAAATTAGCAA AGCTGTGACC CAGCCCGTTTC GATCCCGAAT TC | 2892 |

FIG. 2

| | | % Aggregation with DI with Ser | |
|----------------------|--|--------------------------------------|----|
| 1. pMINMg | | 40 | 21 |
| 2. ΔSph | | 0 | nl |
| 3. ΔCia | | 0 | nl |
| 4. ΔEGF(7-17) | | 0 | nl |
| 5. ΔEGF(9-26) | | 0 | nl |
| 6. ΔEGF(17-30) | | 22 | nl |
| 7. ΔEGF(7-9) | | 20 | 14 |
| 8. ΔEGF(9-17) | | 0 | 0 |
| 9. ΔEGF(17-26) | | 10 | 8 |
| 10. ΔEGF(26-30) | | 5 | 7 |
| 11. ΔEGF(9-30) | | 0 | nl |
| 12. ΔEGF(7-26) | | 0 | nl |
| 13. ΔCia+EGF(9-17) | | 35 | 20 |
| 14. ΔCia+EGF(17-26) | | 0 | nl |
| 15. split | | 42 | nl |
| 16. ΔCia+EGF(9-13) | | 47 | 25 |
| 17. ΔCia+EGF(11-15) | | 0 | 0 |
| 18. ΔCia+EGF(13-17) | | 0 | nl |
| 19. ΔCia+EGF(10-13) | | 56 | 23 |
| 20. ΔCia+EGF(11-13) | | 0 | nl |
| 21. ΔCia+EGF(10-12) | | 0 | nl |
| 22. ΔCia+EGF(10-11) | | 0 | nl |
| 23. ΔCia+EGF(10-12) | | 45 | nl |
| 24. ΔCia+EGF(11-12) | | 11 | nl |
| 25. ΔEGF | | 0 | nl |
| 26. ΔEGF+EGF(9-17) | | 24 | nl |
| 27. ΔEGF+EGF(9-13) | | 40 | nl |
| 28. ΔEGF+EGF(10-13) | | 45 | 23 |
| 29. ΔEGF+EGF(10-12) | | 48 | nl |
| 30. ΔECN | | 0 | nl |
| 31. ΔECN+EGF(10-13) | | 26 | nl |
| 32. ΔECN+EGF(10-12) | | 47 | 22 |
| 33. ΔCia+XEGF(10-13) | | 42 | 20 |

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FIG. 3

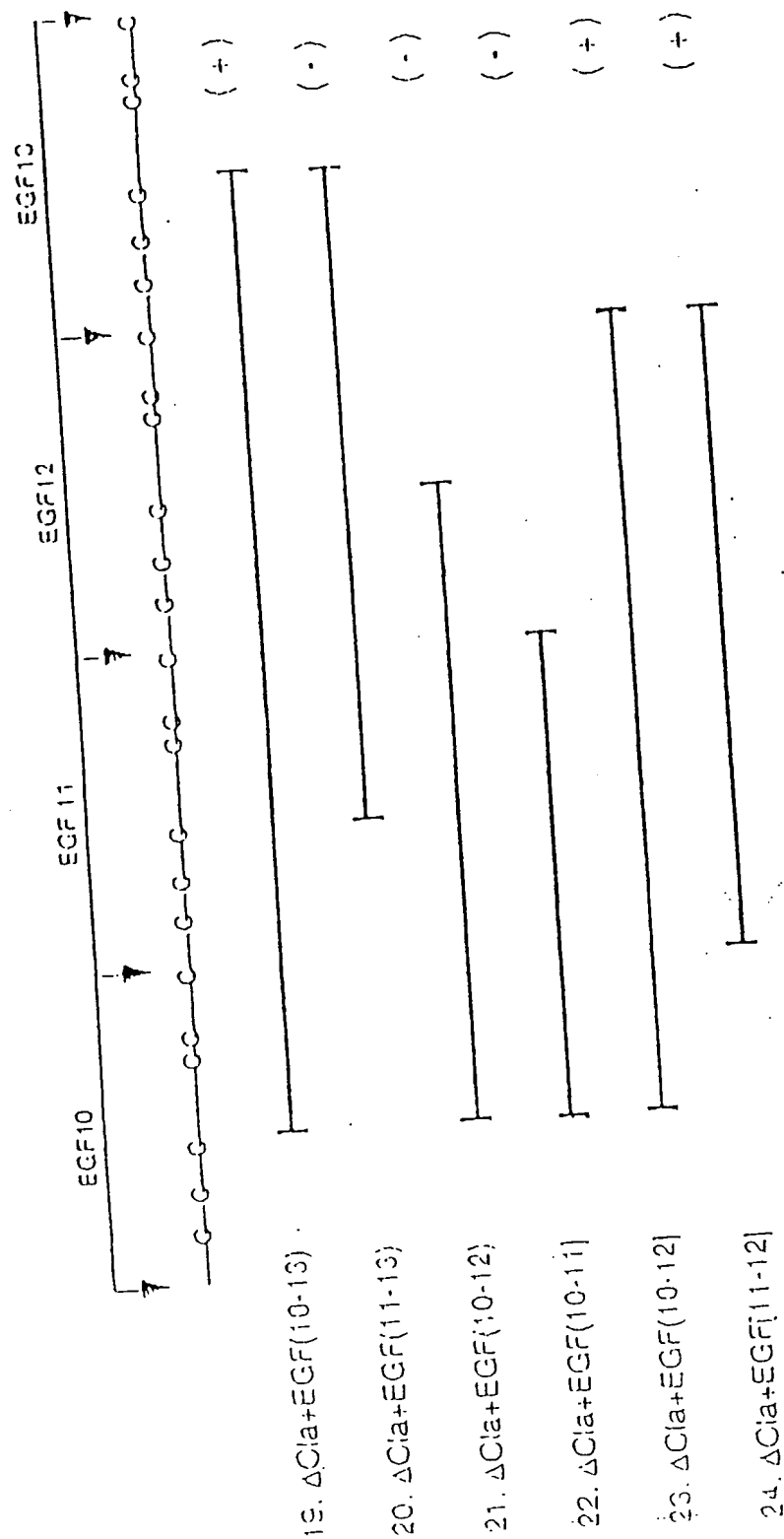


FIG. 4

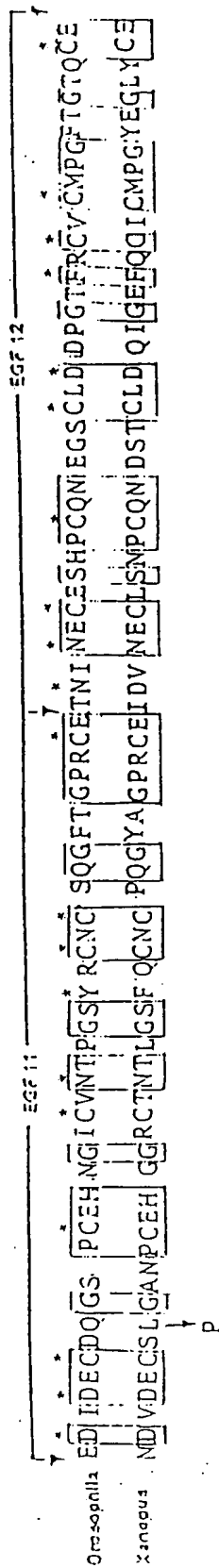


FIG. 5

[illegible]

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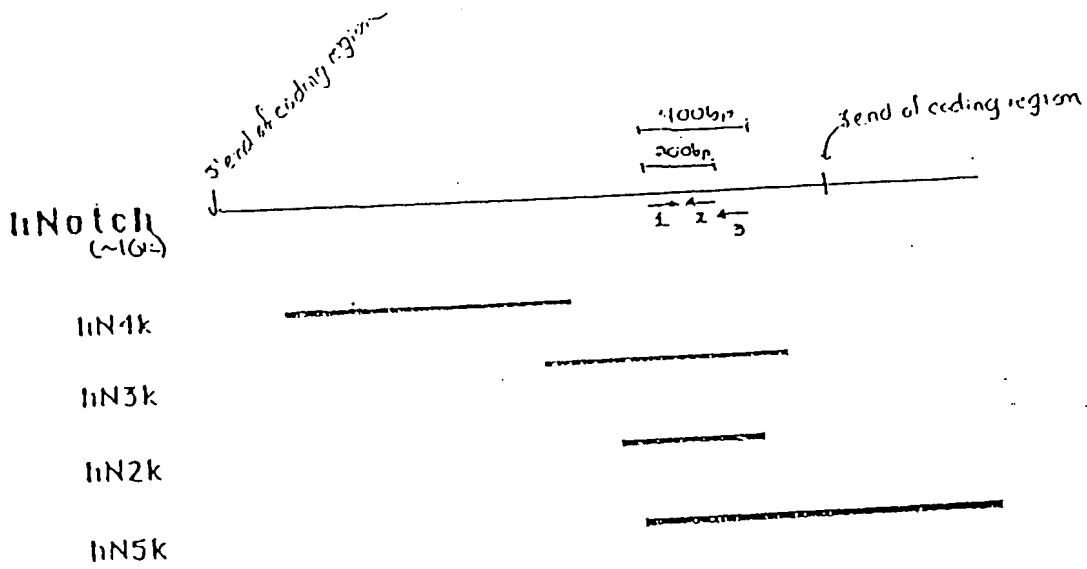
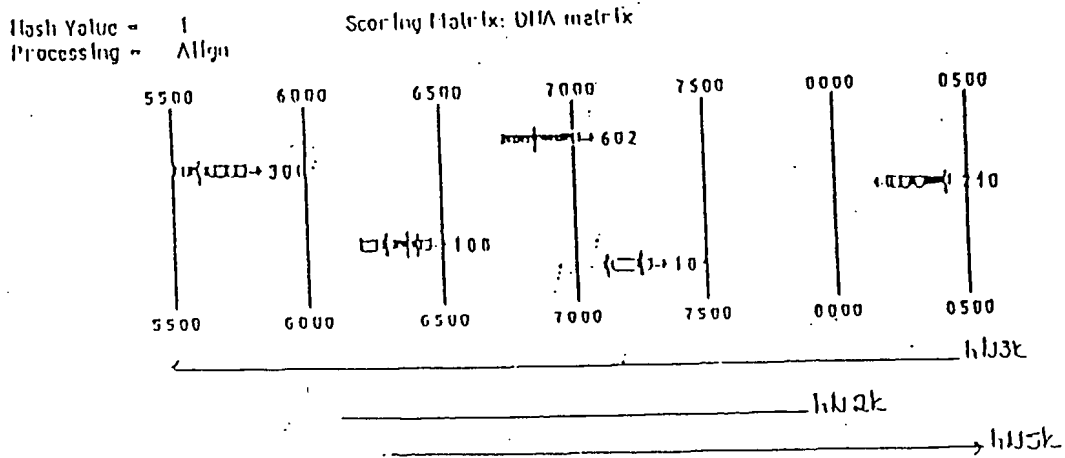
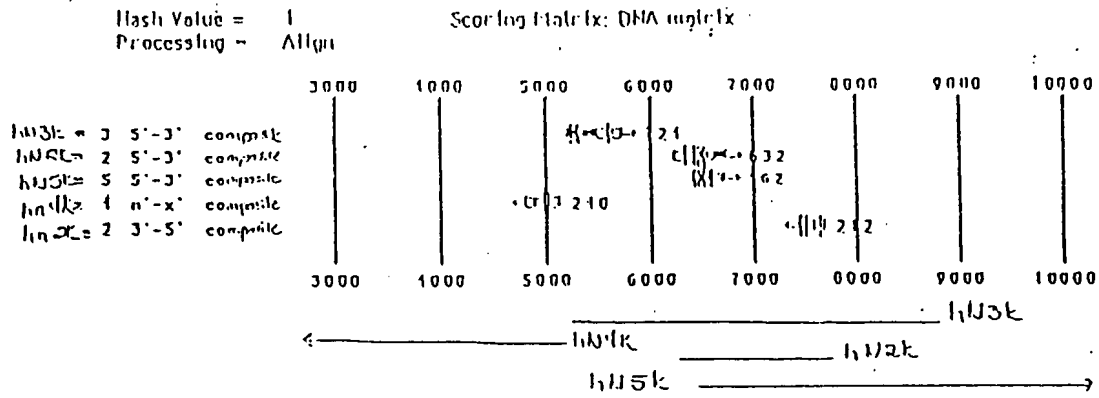


FIG. 6

FIG. 7



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FIG. 8 A-C

A.

```

1  GAAATCCGCT  GGGAGGATGG  TCTGAGCTAC  CTGCCCCGTC  TGCTGGGGCA  TCATTTGGCAH
61  GTGGGGGAAAG  CCACTACTGG  CAATCGGGCC  AGGCCATTTT  TCGAATGTGG  TACATGGTGG
121  GCGGGGGGCC  CGCACTAGCT  GCGGGGCGGG  TGGACTGAGG  CTGGGGATCC  CCGGCTGGTT
181  GGGCAATAGT  GCGTTTACCC  ATGAGCTGGH  AAGTCACAAH  GGGGGGCAAG  GCGTCCCCAG
241  GGTTGTTATG  TGCTTCCCTT  AGGTGGC

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B.

```

1  GAAATCCCTT  CATTTATAGT  GACTTTTCTG  AATCTGTAGC  CACCCCTAGT  TCCTTAACTC
61  CCTCTGGAGT  TTGTCAGCTT  TGGTCTTTT  AATAGAGCAG  CTCTCTTCAH  GCTCCTTAAT
121  GCGGGCATGC  TCCAGTTTGG  TCTGCGTCT  AAGATCACCT  TTGGTAATGG  ATTCTTCTTC
181  AATCCCGGAC  TGAAGGCTGC  CTCTACCCCT  CTAGGCAAGG  CAGGCAATTC  GAGGTGGATG
241  TGTTAGATGT  GAAATGTCCT  GGGCCAGATG  GCTGCAACCC  ATGATGTGG  GCTTCTCTCC
301  GAGGAGGGAG  CTAGGATTTG  AGTCATCAAG  ATGAAGATGC  AGAGGACTGT  TCTGCTAACA
361  TCATCACAGA  CTGGGTCTAC  CAGGGTGCCA  GCGTCCAGHC  CAGACAGACC  GCACTGGTGA
421  GATGGCCCTG  CACCTTGCAG  CCGGCTACTC  AGGGGCTGAT  GCTGCCAGCC  GTCTCCTGGA
481  TGCAGGTGCA  GATGCCAATG  CCGAGGACAA  CATGGGCCCG  TGTCACCTCC  ATGCTGCAGT
541  GGCACGTGAT  GCGAGGTGT  ATTCAATCT  GTTA

```

C.

```

1  TCCAGATTCT  GATTCGCACC  CGAGTAACTG  ATCTAGATGC  CAGGATGAAT  GATGGTACTA
61  CACCCCTGAT  CCTGGCTGCC  CGCCTGGCTG  TCGAGCGGAT  GGTGGCAGAA  CTGATCAACT
121  GCGAGGCGGA  TGTGAATGCA  GTGGATGACC  ATGGAAATAT  TCTCTTCAAC  TGGGCACTG
181  CTGTCAATTA  TGTGGAGGCA  ACTCTTTTGT  TGTGGAAAAA  TGGGCCCAAC  CCGACATGCG
241  AGGACACAAH  GGAAGAGACA  CCTCTGTTTC  TTGCTGCCCG  GAGGAGGCTA  TAAAGC

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FIG. 9 A-B

A.

```

1  GAATTCATT  CAGGAGGAAA  GGGTGGGGAG  AGAAGCAGGC  ACCCACTTTC  CCGTGGCTGG
61  ACTCGTCCC  AGGTGGCTCC  ACCGGCAGCT  GTGACCGCCG  CAGGTGGGGG  CCGAGTGCCA
121  TTCAGAAAT  TCCAGAAAG  CCTACCCCA  ACTCGGACGG  CAACTCACA  CCGTGGGTG
181  GCAACTGGC  CACAAACAG  CAGCGTGCT  GGGGCACGG  GGGATGGCAC  CCCCAGAGG
241  CAGAGCTG

```

B.

```

1  CTAAAGGGAN  CAAAGCGHG  AGCTCCNCC  CGGGCGGCH  HGCTCTAGAA  CTAGTGGANH
61  HCCCGGGCTG  CAGGAATTC  GCGGACTGG  GCTCGGGCT  AGAGCGGCG  TGTGAAAG
121  ATTCTAGACC  GGGAGAACAA  GCGAATGGCT  GACAGCTGG  CTCCAAAGTC  ACCAGGCTCA
181  NATCGCTCG  CCTGGACATC  GAGCGATGC  GAGGATCAG  ACCGGTACCT  GGTGGGCTG
241  ACTCGGATT  ACAGGATGA  CCAGCCTGT  TACAGGGAG  GTGAHNTTT  CACATGCAGT
301  CGACAGACNC  GAGCTCTATG  CAT

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FIG. 10

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      10      20      30      40
      *      *      *      *
TGC CAG GAG GAC GCG GGC AAC AAG GTC TGC AGC CTG CAG TGC AAC AAC
C   Q   E   D   A   G   N   K   V   C   S   L   Q   C   N   N>

50      60      70      80      90
      *      *      *      *      *
CAC GCG TGC GGC TGG GAC GGC GGT GAC TGC TCC CTC AAC TTC AAT GAC
H   A   C   G   W   D   G   G   D   C   S   L   N   F   N   D>

100     110     120     130     140
      *      *      *      *      *
CCC TGG AAG AAC TGC ACG CAG TCT CTG CAG TGC TGG AAG TAC TTC AGT
P   W   K   N   C   T   Q   S   L   Q   C   W   K   Y   F   S>

150     160     170     180     190
      *      *      *      *      *
GAC GGC CAC TGT GAC AGC CAG TGC AAC TCA GCC GGC TGC CTC TTC GAC
D   G   H   C   D   S   Q   C   N   S   A   G   C   L   F   D>

200     210     220     230     240
      *      *      *      *      *
GGC TTT GAC TGC CAG CGT GCG GAA GCC CAG TGC AAC CCC CTG TAC GAC
G   F   D   C   Q   R   A   E   G   Q   C   N   P   L   Y   D>

250     260     270     280
      *      *      *      *
CAG TAC TGC AAG GAC CAC TTC AGC GAC GGG CAC TGC GAC CAG GGC TGC
Q   Y   C   K   D   H   F   S   D   G   H   C   D   Q   G   C>

290     300     310     320     330
      *      *      *      *      *
AAC AGC GCG GAG TGC GAG TGG GAC GGG CTG GAC TGT GCG GAG CAT GTA
N   S   A   E   C   E   W   D   G   L   D   C   A   E   H   V>

340     350     360     370     380
      *      *      *      *      *
CCC GAG AGG CTG GCG GCC GGC ACG CTG GTG GTG GTG GTG CTG ATG CCG
P   E   R   L   A   A   G   T   L   V   V   V   V   L   M   P>

390     400     410     420     430
      *      *      *      *      *
CCG GAG CAG CTG CGC AAC AGC TCC TTC CAC TTC CTG CGG GAG CTC AGC
P   E   Q   L   R   N   S   S   F   H   F   L   R   E   L   S>

440     450     460     470     480
      *      *      *      *      *
CGC GTG CTG CAC ACC AAC GTG GTC TTC AAG CGT GAC GCA CAC GGC CAG
R   V   L   H   T   N   V   V   F   K   R   D   A   H   G   Q>

490     500     510     520
      *      *      *      *
CAG ATG ATC TTC CCC TAC TAC GGC CGC GAG GAG GAG CTG CGC AAG CAC
Q   M   I   F   P   Y   Y   G   R   E   E   E   L   R   K   H>

530     540     550     560     570
      *      *      *      *      *
CCC ATC AAG CGT GCC GCC GAG GGC TGG GCC GCA CCT GAC GCC CTG CTG
P   I   K   R   A   A   E   G   W   A   A   P   D   A   L   L>

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FIG. 10 CONT'D

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580      590      600      610      620
*      *      *      *      *
GGC CAG GTG AAG GCC TCG CTG CTC CCT GGT GGC AGC GAG GGT GGG CCG
G  Q  V  K  A  S  L  L  P  G  G  S  E  G  G  R>

630      640      650      660      670
*      *      *      *      *
CGG CGG AAG GAG CTG GAC CCC ATG GAC GTC CGC GGC TCC ATC GTC TAC
R  R  R  E  L  D  P  M  D  V  R  G  S  I  V  Y>

680      690      700      710      720
*      *      *      *      *
CTG GAG ATT GAC AAC CGG CAG TGT GTG CAG GCC TCC TCG CAG TGC TTC
L  E  I  D  N  R  Q  C  V  Q  A  S  S  Q  C  F>

730      740      750      760
*      *      *      *
CAG AGT GCC ACC GAC GTG GCC GCA TTC CTG GGA GCG CTC GCC TCG CTG
Q  S  A  T  D  V  A  A  F  L  G  A  L  A  S  L>

770      780      790      800      810
*      *      *      *      *
GGC AGC CTC AAC ATC CCC TAC AAG ATC GAG GCC GTG CAG AGT GAG ACC
G  S  L  N  I  P  Y  K  I  E  A  V  Q  S  E  T>

820      830      840      850      860
*      *      *      *      *
GTG GAG CCG CCC CCG CCG GCG CAG CTG CAC TTC ATG TAC GTG GCG GCG
V  E  P  P  P  P  A  Q  L  H  F  M  Y  V  A  A>

870      880      890      900      910
*      *      *      *      *
GCC GCC TTT GTG CTT CTG TTC TTC GTG GGC TGC GGG GTG CTG CTG TCC
A  A  F  V  L  L  F  F  V  G  C  G  V  L  L  S>

920      930      940      950      960
*      *      *      *      *
CGC AAG CGC CGG CGG CAG CAT GGC CAG CTC TGG TTC CCT GAG GGC TTC
R  K  R  R  R  Q  H  G  Q  L  W  F  P  E  G  F>

970      980      990      1000
*      *      *      *
AAA GTG TCT GAG GCC AGC AAG AAG AAG CGG CGG GAG CCC CTC GGC GAG
K  V  S  E  A  S  K  K  K  R  R  E  P  L  G  E>

1010      1020      1030      1040      1050
*      *      *      *      *
GAC TCC GTG GGC CTC AAG CCC CTG AAG AAC GCT TCA GAC GGT GCC CTC
D  S  V  G  L  K  P  L  K  N  A  S  D  G  A  L>

1060      1070      1080      1090      1100
*      *      *      *      *
ATG GAC GAC AAC CAG AAT GAG TGG GGG GAC GAG GAC CTG GAG ACC AAG
M  D  D  N  Q  N  E  W  G  D  E  D  L  E  T  P>

1110      1120      1130      1140      1150
*      *      *      *      *
AAG TTC CGG TTC GAG GAG CCC GTG GTT CTG CCT GAC CTG GAC GAC CAG
K  F  R  F  E  E  P  V  V  L  P  D  L  D  D  Q>

1160      1170      1180      1190      1200
*      *      *      *      *

```

FIG. 10 CONT'D

ACA GAC CAC CGG CAG TGG ACT CAG CAG CAC CTG GAT GCC GCT GAC CTG
 T D H R Q W T Q Q H L D A A D L>

1210 1220 1230 1240
 CGC ATG TCT GCC ATG GCC CCC ACA CCG CCC CAG GGT GAG GTT GAC GCC
 R M S A M A P T P P Q G E V D A>

1250 1260 1270 1280 1290
 GAC TGC ATG GAC GTC AAT GTC CGC GGG CCT GAT GGC TTC ACC CCG CTC
 D C M D V N V R G P D G F T P L>

1300 1310 1320 1330 1340
 ATG ATC GCC TCC TGC AGC GGG GGC GGC CTG GAG ACG GGC AAC AGC GAG
 M I A S C S G G G L E T G N S E>

1350 1360 1370 1380 1390
 GAA GAG GAG GAC GCG CCG GCC GTC ATC TCC GAC TTC ATC TAC CAG GGC
 E E E D A P A V I S D F I Y Q G>

1400 1410 1420 1430 1440
 GCC AGC CTG CAC AAC CAG ACA GAC CGC ACG GGC GAG ACC GCC TTG CAC
 A S L H N Q T D R T G E T A L H>

1450 1460 1470 1480
 CTG GCC GCC CGC TAC TCA CGC TCT GAT GCC GCC AAG CGC CTG CTG GAG
 L A A R Y S R S D A A K R L L E>

1490 1500 1510 1520 1530
 GCC AGC GCA GAT GCC AAC ATC CAG GAG AAC ATG GGC CGC ACC CCG CTG
 A S A D A N I Q D N M G R T P L>

1540 1550 1560 1570 1580
 CAT GCG GCT GTG TCT GCC GAC GCA CAA GGT GTC TTC CAG ATC CTG ATC
 H A A V S A D A Q G V F Q I L I>

1590 1600 1610 1620 1630
 CGG AAC CGA GCC ACA GAC CTG GAT GCC CGC ATG CAT GAT GGC ACG ACG
 R N R A T D L D A R M H D G T T>

1640 1650 1660 1670 1680
 CCA CTG ATC CTG GCT GCC CGC CTG GCC GTG GAG GGC ATG CTG GAG GAC
 P L I L A A R L A V E G M L E D>

1690 1700 1710 1720
 CTC ATC AAC TCA CAC GCC GAC GTC AAC GCC GTA GAT GAC CTG GGC AAG
 L I N S H A D V N A V D D L G E>

1730 1740 1750 1760 1770
 TCC GCC CTG CAC TGG GCC GCC GCC GTG AAC AAT GTG GAT GCC GCA GTT
 S A L H W A A A V N N V D A A V>

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FIG. 10 CONT'D

| | | | | |
|------|------|------|------|------|
| 1780 | 1790 | 1800 | 1810 | 1820 |
| GTG | CTC | CTG | AAG | AAC |
| V | L | L | K | N |
| GGG | GCT | AAC | AAA | GAT |
| G | A | N | K | D |
| ATG | CAG | AAC | AAC | AGG |
| M | Q | N | N | R |
| 1830 | 1840 | 1850 | 1860 | 1870 |
| GAG | ACA | CCC | CTG | TTT |
| E | T | P | L | F |
| CTG | CTG | GCC | GCC | CGG |
| L | L | A | A | R |
| GAG | GGC | AGC | TAC | GAG |
| E | G | S | Y | E |
| ACC | GCC | | | |
| T | A | | | |
| 1880 | 1890 | 1900 | 1910 | 1920 |
| AAG | GTG | CTG | CTG | GAC |
| K | V | L | L | D |
| CAC | TTT | GCC | AAC | CGG |
| H | F | A | N | R |
| GAC | ATC | ACG | GAT | CAT |
| D | I | T | D | H |
| ATG | | | | |
| MD | | | | |
| 1930 | 1940 | 1950 | 1960 | |
| GAC | CGC | CTG | CCG | CGC |
| D | R | L | P | R |
| GAC | ATC | GCA | CAG | GAG |
| D | I | A | Q | E |
| CGC | ATG | CAT | CAC | GAC |
| R | M | H | H | D |
| ATC | | | | |
| DI | | | | |
| 1970 | 1980 | 1990 | 2000 | 2010 |
| GTG | AGG | CTG | CTG | GAC |
| V | R | L | L | D |
| GAG | TAC | AAC | CTG | GTG |
| E | Y | N | L | V |
| CGC | AGC | CCG | CAG | CTG |
| R | S | P | Q | L |
| CAC | | | | |
| HD | | | | |
| 2020 | 2030 | 2040 | 2050 | 2060 |
| GGA | GCC | CCG | CTG | GGG |
| G | A | P | L | G |
| GGC | ACG | CCC | ACC | CTG |
| G | T | P | T | L |
| TCG | CCC | CCG | CTC | TGC |
| S | P | P | L | C |
| TCG | | | | |
| SS | | | | |
| 2070 | 2080 | 2090 | 2100 | 2110 |
| CCC | AAC | GGC | TAC | CTG |
| P | N | G | Y | L |
| GGC | AGC | CTC | AAG | CCC |
| G | S | L | K | P |
| GGC | GTG | CAG | GGC | AAG |
| G | V | Q | G | K |
| AAG | | | | |
| KD | | | | |
| 2120 | 2130 | 2140 | 2150 | 2160 |
| GTC | CGC | AAG | CCC | AGC |
| V | R | K | P | S |
| AGC | AGC | AAA | GGC | CTG |
| S | S | K | G | L |
| GCC | TGT | GGA | AGC | AAG |
| A | C | G | S | K |
| GAG | | | | |
| GCC | | | | |
| AA | | | | |
| 2170 | 2180 | 2190 | 2200 | |
| AAG | GAC | CTC | AAG | GCA |
| K | D | L | K | A |
| CGG | AGG | AAG | AAG | TCC |
| R | R | K | K | S |
| CAG | GAT | GGC | AAG | GGC |
| Q | D | G | K | G |
| TGC | | | | |
| CD | | | | |
| 2210 | 2220 | 2230 | 2240 | 2250 |
| CTG | CTG | GAC | AGC | TCC |
| L | L | D | S | S |
| GGC | ATG | CTC | TCG | CCC |
| G | M | L | S | P |
| GTG | GAC | TCC | CTG | GAG |
| V | D | S | L | E |
| TCA | | | | |
| TS | | | | |
| 2260 | 2270 | 2280 | 2290 | 2300 |
| CCC | CAT | GGC | TAC | CTG |
| P | H | G | Y | L |
| TCA | GAC | GTG | GCC | TCG |
| S | D | V | A | S |
| CCG | CCA | CTG | CTG | CCC |
| P | P | L | L | P |
| TCC | | | | |
| SS | | | | |
| 2310 | 2320 | 2330 | 2340 | 2350 |
| CCG | TTC | CAG | CAG | TCT |
| P | F | Q | Q | S |
| CCG | TCC | GTG | CCC | CTC |
| P | S | V | P | L |
| AAC | CAC | CTG | CCT | GGG |
| N | H | L | P | G |
| ATG | | | | |
| MD | | | | |
| 2360 | 2370 | 2380 | 2390 | 2400 |

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FIG. 10 CONT'D

```

*   *   *   *   *   *   *   *   *   *   *   *   *   *
CCC GAC ACC CAC CTG GGC ATC GGG CAC CTG AAC GTG GCG GCC AAG CCC
P   D   T   H   L   G   I   G   H   L   N   V   A   A   K   P>

      2410      2420      2430      2440
*   *   *   *   *   *   *   *   *   *   *   *   *   *
CAG ATG GCG GCG CTG GGT GGG GGC GGC CGG CTG GCC TTT GAG ACT GGC
E   M   A   A   L   G   G   G   G   R   L   A   F   E   T   G>

2450      2460      2470      2480      2490
*   *   *   *   *   *   *   *   *   *   *   *   *   *
CCA CCT CGT CTC TCC CAC CTG CCT GTG GCC TCT GGC ACC AGC ACC GTC
P   P   R   L   S   H   L   P   V   A   S   G   T   S   T   V>

      2500      2510      2520      2530      2540
*   *   *   *   *   *   *   *   *   *   *   *   *   *
CTG GGC TCC AGC AGC GGA GGG GCC CTG AAT TTC ACT GTG GGC GGG TCC
L   G   S   S   S   G   G   A   L   N   F   T   V   G   G   S>

      2550      2560      2570      2580      2590
*   *   *   *   *   *   *   *   *   *   *   *   *   *
ACC AGT TTG AAT GGT CAA TGC GAG TGG CTG TCC CGG CTG CAG AGC GGC
T   S   L   N   G   Q   C   E   W   L   S   R   L   Q   S   G>

      2600      2610      2620      2630      2640
*   *   *   *   *   *   *   *   *   *   *   *   *   *
ATG GTG CCG AAC CAA TAC AAC CCT CTG CGG GGG AGT GTG GCA CCA GGC
M   V   P   N   Q   Y   N   P   L   R   G   S   V   A   P   G>

      2650      2660      2670      2680
*   *   *   *   *   *   *   *   *   *   *   *   *   *
CCC CTG AGC ACA CAG GCC CCC TCC CTG CAG CAT GGC ATG GTA GGC CCG
P   L   S   T   Q   A   P   S   L   Q   H   G   M   V   G   P>

2690      2700      2710      2720      2730
*   *   *   *   *   *   *   *   *   *   *   *   *   *
CTG CAC AGT AGC CTT GCT GCC AGC GCC CTG TCC CAG ATG ATG AGC TAC
L   H   S   S   L   A   A   S   A   L   S   Q   M   M   S   Y>

      2740      2750      2760      2770      2780
*   *   *   *   *   *   *   *   *   *   *   *   *   *
CAG GGC CTG CCC AGC ACC CGG CTG GCC ACC CAG CCT CAC CTG GTG CAG
Q   G   L   P   S   T   R   L   A   T   Q   P   H   L   V   Q>

      2790      2800      2810      2820      2830
*   *   *   *   *   *   *   *   *   *   *   *   *   *
ACC CAG CAG GTG CAG CCA CAA AAC TTA CAG ATG CAG CAG CAG AAC CTG
T   Q   Q   V   Q   P   Q   N   L   Q   M   Q   Q   Q   N   L>

      2840      2850      2860      2870      2880
*   *   *   *   *   *   *   *   *   *   *   *   *   *
CAG CCA GCA AAC ATC CAG CAG CAG CAA AGC CTG CAG CCG CCA CCA CCA
Q   P   A   H   I   Q   Q   Q   Q   S   L   Q   P   P   P   P>

      2890      2900      2910      2920
*   *   *   *   *   *   *   *   *   *   *   *   *   *
CCA CCA CAG CCG CAC CTT GGC GTG AGC TCA GCA GCC AGC GGC CAC CTG
P   P   Q   P   H   L   G   V   S   S   A   A   S   G   H   L>

2930      2940      2950      2960      2970
*   *   *   *   *   *   *   *   *   *   *   *   *   *
GGC CGG AGC TTC CTG AGT GGA GAG CCG AGC CAG GCA GAC GTG CAG CCA

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FIG. 10 CONT'D

G R S F L S G E P S Q A D V Q P>
 2980 2990 3000 3010 3020
 * * * * *
 CTG GGC CCC AGC AGC CTG GCG GTG CAC ACT ATT CTG CCC CAG GAG AGC
 L G P S S L A V H T I L P Q E S>
 3030 3040 3050 3060 3070
 * * * * *
 CCC GCC CTG CCC ACG TCG CTG CCA TCC TCG CTG GTC CCA CCC GTG ACC
 P A L P T S L P S S L V P P V T>
 3080 3090 3100 3110 3120
 * * * * *
 GCA GCC CAG TTC CTG ACG CCC CCC TCG CAG CAC AGC TAC TCC TCG CCT
 A A Q F L T P P S Q H S Y S S P>
 3130 3140 3150 3160
 * * * * *
 GTG GAC AAC ACC CCC AGC CAC CAG CTA CAG GTG CCT GTT CCT GTA ATG
 V D N T P S H Q I Q V P V P V M>
 3170 3180 3190 3200 3210
 * * * * *
 GTA ATG ATC CGA TCT TCG GAT CCT TCT AAA GGC TCA TCA ATT TTG ATC
 V M I R S S D P S K G S S I L I>
 3220 3230
 * * *
 GAA GCT CCC GAC TCA TGG
 E A P D S W>

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FIG. 11

| | |
|---|-----|
| G GAG GTG GAT GTG TTA GAT GTG AAT CTC CGT GGC CCA GAT GGC TGC Glu Val Asp Val Leu Asp Val Asn Val Arg Gly Pro Asp Gly Cys 1 5 10 15 | 46 |
| ACC CCA TGC ATC TTC GGT TGT CTC CCA CCA GGC ACC TCA GAT TTC AGT Thr Pro Leu Met Leu Ala Ser Leu Arg Gly Gly Ser Ser Asp Leu Ser 20 25 30 | 94 |
| GAT GAA GAT GAA GAT CCA GAG GAG TCT TCT GGT AAC ATC ATC ACA GAG Asp Glu Asp Glu Asp Ala Glu Asp Ser Ser Ala Asn Ile Ile Thr Asp 35 40 45 | 142 |
| TTC CTC TAC CAG GGT GGC ACC CTC GAG GGC CAG ACA GAG CGG AGT GGT Leu Val Tyr Glu Gly Ala Ser Leu Glu Ala Glu Thr Asp Arg Thr Gly 50 55 60 | 190 |
| GAG ATG CCC CTC GAG GTT GCA GGC CGC TAC TCA CGG GGT GAT GGT GGC Glu Met Ala Leu His Leu Ala Ala Arg Tyr Ser Arg Ala Asp Ala Ala 65 70 75 | 238 |
| AAC CGT CTC CTC GAT CCA GGT CCA GAT GGC AAT GGC CAG GAG AAC ATG Lys Arg Leu Leu Asp Ala Gly Ala Asp Ala Asn Ala Glu Asp Asn Met 80 85 90 95 | 286 |
| GGC CGC TGT CCA CTC GAT GGT GCA GTG CCA GGT GAT GGC CAA GGT CTC Gly Arg Cys Pro Leu His Ala Ala Val Ala Ala Asp Ala Glu Gly Val 100 105 110 | 334 |
| TTC CAG ATT CTC ATT GGC AAC CGA GTA AGT GAT GTA GAT GGC ACC ATG Phe Glu Ile Leu Ile Arg Asn Arg Val Thr Asp Leu Asp Ala Arg Met 115 120 125 | 382 |
| AAT GAT GGT AGT ACA CCC CTC ATC CTC GGT GGC CGC CTC GGT CTC GAG Asn Asp Gly Thr Thr Pro Leu Ile Leu Ala Ala Arg Leu Ala Val Glu 130 135 140 | 430 |
| GCA ATG GTG CCA GAA CTG ATC AAC TGC CAA GCG GAT GTG AAT CCA GTG Gly Met Val Ala Glu Leu Ile Asn Cys Glu Ala Asp Val Asn Ala Val 145 150 155 | 478 |
| GAT GAG GAT CCA AAA TCT GGT GTT CAG TGC CCA GGT GGT CTC AAT AAT Asp Asp His Gly Lys Ser Ala Leu His Trp Ala Ala Ala Val Asn Asn 160 165 170 175 | 526 |
| CTG GAG CCA AGT GTT TTG TTG TTG AAA AAT GGC GGC AAC CCA GAG ATG Val Glu Ala Thr Leu Leu Leu Leu Lys Asn Gly Ala Asn Arg Asp Met 180 185 190 | 574 |
| CAG GAG AAC AAG GAA GAG ACA CCT CTC TTT GTT GGT GGC CGG GAG GGC Glu Asp Asn Lys Glu Glu Thr Pro Leu Phe Leu Ala Ala Arg Glu Gly 195 200 205 | 622 |
| ACC TAT GAA CCA GGC AAC ATC CTC TTA GAG GAT TTT GGC AAT CCA GAG Ser Tyr Glu Ala Ala Lys Ile Leu Leu Asp His Phe Ala Asn Arg Asp 210 215 220 | 670 |
| ATC ACA GAG GAT ATG GAT GGT GTT CCC CGG GAT GTG GGT CGG GAT CGC Ile Thr Asp His Met Asp Arg Leu Pro Arg Asp Val Ala Arg Asp Arg 225 230 235 | 718 |
| ATG CAG CAT GAG ATT GTG CGC GTT CIG GAT GAA TAC AAT GTG ACC CCA Met His His Asp Ile Val Arg Leu Leu Asp Glu Tyr Asn Val Thr Pro 240 245 250 255 | 766 |

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FIG. 11 CONT'D

| | |
|---|------|
| ACC CCT CCA GGC ACC GTC TTG ACT TCT GCT CTC TCA CCT GTC ATC TGT | 014 |
| Ser Pro Pro Gly Thr Val Leu Thr Ser Ala Leu Ser Pro Val Ile Cys | |
| 260 265 270 | |
| GGG CCC AAG AGA TCT TTC CTC AGC CIG AAG CAC ACC CCA ATC GCG AAG | 062 |
| Gly Pro Arg Arg Ser Phe Leu Ser Leu Lys His Thr Pro Met Gly Lys | |
| 275 280 285 | |
| AAG TCT AGA CCG CCC AGT GCC AAG AGT ACC ATC CCT ACT AGC CTC CCT | 910 |
| Lys Ser Arg Arg Pro Ser Ala Lys Ser Thr Met Pro Ser Leu Pro | |
| 290 295 300 | |
| AAC CTT CCC AAG GAG CCA AAG GAT GCC AAG GGT AGT AGC AGC AAG AAG | 950 |
| Asn Leu Ala Lys Glu Ala Asp Ala Lys Gly Ser Arg Arg Lys Lys | |
| 305 310 315 | |
| TCT CIG ACT GAG AAG GTC CAA CTC TCT GAG AGT TCA GTA ACT TTA TCC | 1006 |
| Ser Leu Ser Glu Lys Val Glu Leu Ser Glu Ser Val Thr Leu Ser | |
| 320 325 330 335 | |
| CCT GTT GAT TCC CTA GAA TCT CCT CAC ACC TAT GTT TCC GAG ACC ACA | 1054 |
| Pro Val Asp Ser Leu Glu Ser Pro His Thr Tyr Val Ser Asp Thr Thr | |
| 340 345 350 | |
| TCC TCT CCA ATC ATT AGA TCC CCT GCG ATC TTA CAG CCC TCA CCC AAG | 1102 |
| Ser Ser Pro Met Ile Thr Ser Pro Gly Ile Leu Glu Ala Ser Pro Asn | |
| 355 360 365 | |
| CCT ATC TTG CCC ACT GCC GCC CCT CCT GCC CCA CTC CAT GCC CAG CAT | 1150 |
| Pro Met Leu Ala Thr Ala Ala Pro Pro Ala Pro Val His Ala Glu His | |
| 370 375 380 | |
| CCA CTA TCT TTT TCT AAC CTT CAT GAA ATG CAG CCT TTG CCA CAT GCG | 1198 |
| Ala Leu Ser Phe Ser Asn Leu His Glu Met Glu Pro Leu Ala His Gly | |
| 385 390 395 | |
| CCC AGC ACT GTC CTT CCC TCA GTG AGC CAG TTG CTA TCC CAC CAC CAC | 1246 |
| Ala Ser Thr Val Leu Pro Ser Val Ser Glu Leu Leu Ser His His His | |
| 400 405 410 415 | |
| ATT GTC TCT CCA GGC AGT GCC AGT CCT GCA AGC TTG AGT AGC CTC CAT | 1294 |
| Ile Val Ser Pro Gly Ser Gly Ser Ala Gly Ser Leu Ser Arg Leu His | |
| 420 425 430 | |
| CCA GTC CCA GTC CCA CCA GAT TGG ATG AAC CCC ATG GAG GTC AAT GAG | 1342 |
| Pro Val Pro Val Pro Ala Asp Trp Met Asn Arg Met Glu Val Asn Glu | |
| 435 440 445 | |
| ACC CAG TAC AAT GAG ATG TTT GGT ATG GTC CTC GCT CCA CCT GAG GCG | 1390 |
| Thr Glu Tyr Asn Glu Met Phe Gly Met Val Leu Ala Pro Ala Glu Gly | |
| 450 455 460 | |
| ACC CAT CCT GGC ATA GCT CCC CAG AGC AGC CCA CCT GAA GCG AAG CAC | 1438 |
| Thr His Pro Gly Ile Ala Pro Glu Ser Arg Pro Pro Glu Gly Lys His | |
| 465 470 475 | |
| ATA ACC ACC CCT CCG CAG CCC TTG CCC CCC ATT GTC ACT TTC CAG CTC | 1486 |
| Ile Thr Thr Pro Arg Glu Pro Leu Pro Pro Ile Val Thr Phe Glu Leu | |
| 480 485 490 495 | |
| ATC CCF AAA GCG AGT ATT GCC CAA CCA GCG GCG GCT CCC CAG CCT CAG | 1534 |
| Ile Pro Lys Gly Ser Ile Ala Glu Pro Ala Gly Ala Pro Glu Pro Glu | |
| 500 505 510 | |
| TCC ACC TCC CCT CCA GCT GTT GCG CCC CCC CTC CCC ACC ATC TAC CAG | 1582 |
| Ser Thr Cys Pro Pro Ala Val Ala Gly Pro Leu Pro Thr Met Tyr Glu | |
| 515 520 525 | |
| ATT CCA GAA ATG CCC CCT TTG CCC AGT GTC GCT TTC CCC ACT CCC ATG | 1630 |
| Ile Pro Glu Met Ala Arg Leu Pro Ser Val Ala Phe Pro Thr Ala Met | |
| 530 535 540 | |

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FIG. // CONT'D

| | |
|---|------|
| ATG CCC CAG CAG GAC GGG CAG GTA GCT CAG ACC ATT CTC CCA GCC TAT Met Pro Gln Gln Asp Gly Gln Val Ala Gln Thr Ile Leu Pro Ala Tyr 545 550 555 | 1678 |
| CAT CCT TTC CCA GCG TCT GTG GGC AAG TAC CCC ACA CCC CCT TCA CAG His Pro Phe Pro Ala Ser Val Gly Lys Tyr Pro Thr Pro Pro Ser Gln 560 565 570 575 | 1726 |
| CAC AGT TAT GGT TCC TCA AAT GCT GCT GAG CGA ACA CCC AGT CAC AGT His Ser Tyr Ala Ser Ser Asn Ala Ala Glu Arg Thr Pro Ser His Ser 580 585 590 595 | 1774 |
| GGT CAC CTC CAG GGT CAG CAT CCC TAC CTG ACA CCA TCC CCA GAG TCT Gly His Leu Gln Gly Glu His Pro Tyr Leu Thr Pro Ser Pro Glu Ser 595 600 605 | 1822 |
| CCT GAC CAG TGG TCA AGT TCA TCA CCC CAC TCT GCT TCT CAC TGG TCA Pro Asp Gln Trp Ser Ser Ser Ser Pro His Ser Ala Ser Asp Trp Ser 610 615 620 | 1870 |
| CAT GTG ACC ACC ACC CCT ACC CCT GGG GGT GCT GGA GGA GGT CAG CGG Asp Val Thr Thr Ser Pro Thr Pro Gly Gly Ala Gly Gly Gly Glu Arg 625 630 635 | 1918 |
| GGA CCT GGG ACA CAC ATG TCT GAG CCA CCA CAC AAC AAC ATG CAG GTT Gly Pro Gly Thr His Met Ser Glu Pro Pro His Asn Asn Met Glu Val 640 645 650 655 | 1966 |
| TAT GCG TGAGAGAGTC CACCTCCAGT GTAGAGACAT AACAGACTTT TGTAAATGCT Tyr Ala | 2022 |
| GCTGAGGAAC AAATGAAAGGT CATCCGGGAG AGAAATGAAG AAATCTCTGG AGCCAGCTTC | 2082 |
| TAGAGGTACG AAAGAGAAAGT TGTCTTATT CAGATAATGC AACAGAAAGCA ATTCGTCAGT | 2142 |
| TTCACTGGGT ATCTGCAAGG CTTATTGATT ATTCTAATCT AATAAGACAA GTTGTGGAA | 2202 |
| ATGCAAGATC AATACAAAGCC TTGGGTCCAT GTTACTCTC TTCTATTTCG AGAATAAGAT | 2262 |
| GGATGCITAT TGAAGCCGAG ACAATCTTGC AGCTTGGACT GCATTTTAAG CCTTGCAGGC | 2322 |
| TTCTGCCATA TCCATGAGAA GATTCTACAC TAGCGTCTTG TTGGGAATTA TCCCTGGAA | 2382 |
| TTCTGCCIGA ATTGACCTAC GCATCTCCTC CTCCTTGGAG ATTCTTTTGT CTTCATTTCG | 2442 |
| TGCTTTTGGT TTTCACCTC TCCGTGATT TAGCCCTACC AGCATGTTAT AGGGCAAGAC | 2502 |
| CTTTGTGCTT TTGATCATTC TGGCCCATGA AAGCAACTTT GGTCTCCTTT CCCCTCCTGT | 2562 |
| CTTCCCGGTA TCCCTTGGAG TCTCACAAGG TTTACTTTGG TAGGTTCCTC AGCACAAGCC | 2622 |
| TTTCAAGTAT GTTGTITCTT TGGAAAATGG ACATACTGTA TTGTGTCTC CTGCATATAT | 2682 |
| CATTCTTGA GAGAGAAAGG GAGAAAGATA CTTTCTTCA ACAAAATTTG GGGGCAGGAG | 2742 |
| ATCCCTTCAA GAGGCTGCAC CTTAAATTTT CTGTCTGTG TCCAGGTCTT CATATAAACT | 2802 |
| TTACCAGGAA GAAGGGTGTG AGTTTGTGT TTTCTGTGT ATGGCCCTGG TCACTGTAAA | 2862 |
| GTITTTATCCT TCATAGTCTA GTTACTATGA CCGTCCCCAC TTTTAAAAA CCAAGAAAAAG | 2922 |
| GTITGGAAAG TTGCAATGAC CAAGAGACAA GTTAACTCGT GCAAGAGCCA GTTACCCACC | 2982 |
| CACAGGTCCC CTTACTTCCT GGCAGGCAAT CCATTGACTC CTTGTATGGA ACACATTTGT | 3042 |
| CCCAGATCTG AGCATTCATG GCGTGTTCCT CTCAGTCACC CAGCATATGA AACTAGTCTT | 3102 |
| AACTGTTCAG CTTTTCCTTT CATATCCACA GAAGAGACTG TCTCAAAATGT TGTACCCCTG | 3162 |

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FIG. 11 CONT'D

| | |
|--|------|
| CCATTTAGGA CTGAACTTTC CITAGCCCCA GGGACCCAGT GACAGTTGTC TTCCGTTTGT | 3222 |
| CAGATGATCA GTCTCTACTG ATTATCTTGC TGCTTAAAGG CCIGCTCACC AATCTTTCTT | 3282 |
| TCACACCCGTC TGGTCCGTTT TACTGGTATA CCCAGTATGT TCTCAGTCGA GACATGGACT | 3342 |
| TTATATGTTT AAGTGCAGGA ATTGGAAAAT TGGACTTGTT TTCTATGATC CAAAACAGCC | 3402 |
| CTATAAGAAAG GTTGGAAAAG GAGGAACATAT ATAGCAGCCCT TTGCTATTTT CTGCTACCAT | 3462 |
| TTCTTTTCCT CTGAAGCCGGC CATGACATTC CCTTTGGCAA CTAAAGTAGA AACTCAACAG | 3522 |
| AACATTTTCC TTTCCTAGAG TCACCTTTTA GATGATAATC GACAACTATA GACTTGCTCA | 3582 |
| TTGTTGAGAC TGATTGCCCC TCACCTGAAT CCAGTCTCTG TATTGATGCT CTTCGCCAAT | 3642 |
| TCTTTGACTT TCTTTTAAAG GCAGAAACAT TTTAGTTAAT TGTAGATAAA GAATAGTTTT | 3702 |
| CTTCCCTCTC TGCTTGGGGC AGTTAATAAT TGGTCCATCC CTACAGTCCA ACTTCCGTCC | 3762 |
| AGTGCCTGTA TGGCCATGAC ACCTGC AAAA TAAGTTCTGC CTGGCCATTT TGTAGATATT | 3822 |
| AACAGGTCAA TTCCCGACTC TTTTGGTTTG AATGACAGTT CTCATTCCCT CTATGGCTGC | 3882 |
| AAGTATGCAT CAGTGCCTCC CACTTACCTG ATTTGCTCTG CGGTGGCCCC ATATGGAAAC | 3942 |
| CGTGGCTGTC TGTGGCATA ATAGTTTACA AATGGTTTTT TCAGTCCAT CCAAATTTAT | 4002 |
| TGAACCAACA AAAATAATTA CTCTGCCCCT GAGATAAGCA GATTAAAGTT GTTCATTCTC | 4062 |
| TGCTTTATTC TCTCCATGTG GCAACATTCT CTCAGCCTCT TTCATAGTGT GCAAACATTT | 4122 |
| TATCATTTCTA AATGGTGACT CTCTGCCCTT GGACCCATTT ATTATTACA GATGGGGAGA | 4182 |
| ACCTATCTGC ATGGACCCCT ACCATCCCTCT GTGCAGCACA CACAGTGCAG GGAGCCAGTC | 4242 |
| GGGATGGCGA TGACTTTCTT CCCCCTC | 4268 |



1-471
 2-471
 3-471
 4-471
 5-471

56
 1-11-1
 1200
 1200
 1200
 1200

5K
TAN-1
23C MARCH
XANOPUS NOCT
OCTAGON NOCT

5k
TAM-1
PAC MOLEC
XANOPUS MOLEC
TAM-1000 MOLEC

FIG. 12B CONT'D

Potential signal cleavage site →

EGF-like Repeats

[illegible]

FIG. 13 CONT'D

| | | | | | | | | | | | | | |
|--------|------------|------------|------------|------------|------------|------------|-----------|------------|-----------|-----------|------------|------------|------|
| hum N | SNPCQNGATC | SOFTGCGRCE | CVPTGCGVNC | EYEDVDCQNG | PCQNGGTCTD | LNVHFKCSCP | POTRGLLCE | NIDDCAR--- | GPICLN | GOCCHRIAG | YSCRLGCTGA | GERCEGDINE | 1267 |
| TAN-1 | SPSCQNGATC | TDTLOGYSCK | CVAGYHGVNC | SEEDICLSH | PCQNGGTCTD | LNVHFKCSCP | POTRGLLCE | NIDDCAR--- | GPICLN | GOCCHRIAG | YSCRLGCTGA | GERCEGDINE | 1271 |
| Xen N | SPSCQNGATC | TDTLOGYSCK | CVAGYHGVNC | SEEDICLSH | PCQNGGTCTD | LNVHFKCSCP | POTRGLLCE | NIDDCAR--- | GPICLN | GOCCHRIAG | YSCRLGCTGA | GERCEGDINE | 1276 |
| Dros N | SPSCQNGATC | TDTLOGYSCK | CVAGYHGVNC | SEEDICLSH | PCQNGGTCTD | LNVHFKCSCP | POTRGLLCE | NIDDCAR--- | GPICLN | GOCCHRIAG | YSCRLGCTGA | GERCEGDINE | 1289 |
| hum H | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1300 |
| TAN-1 | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1376 |
| Xen H | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1389 |
| Dros N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1397 |
| hum H | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1416 |
| TAN-1 | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1476 |
| Xen N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1501 |
| Dros H | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1531 |
| hum N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1591 |
| TAN-1 | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1619 |
| Xen N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1615 |
| Dros N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1650 |
| hum N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1745 |
| TAN-1 | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1782 |
| Xen N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1837 |
| Dros N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1861 |
| hum N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1902 |
| TAN-1 | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1954 |
| Xen N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1949 |
| Dros N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 1976 |
| hum N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 2022 |
| TAN-1 | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 2074 |
| Xen N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 2069 |
| Dros N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 2096 |
| hum N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 2127 |
| TAN-1 | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 2178 |
| Xen N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 2170 |
| Dros N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 2208 |
| hum N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 2169 |
| TAN-1 | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 2219 |
| Xen N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 2213 |
| Dros N | CLSNPCSDRG | TQNCIGLVND | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | ROS | GHKICQNGF | YHCRCPCHM | GRHCEHGVN | CAVSPCQNGQ | NQCN--- | 2327 |

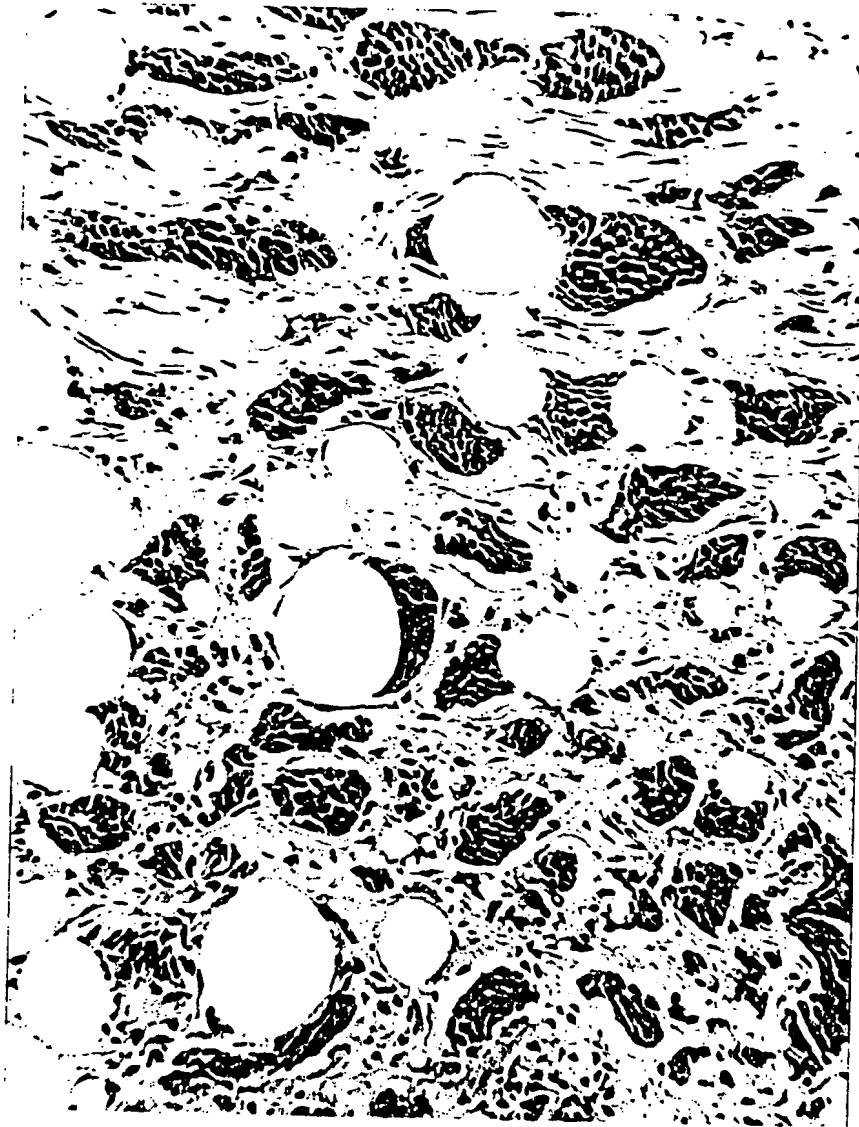
LNR (Notch/In-12 Repeats)

CDC-10/Ankyrin Repeats

[illegible]

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FIG. 14



7326-015 (Sheet 29 of 44)

FIG. 15A

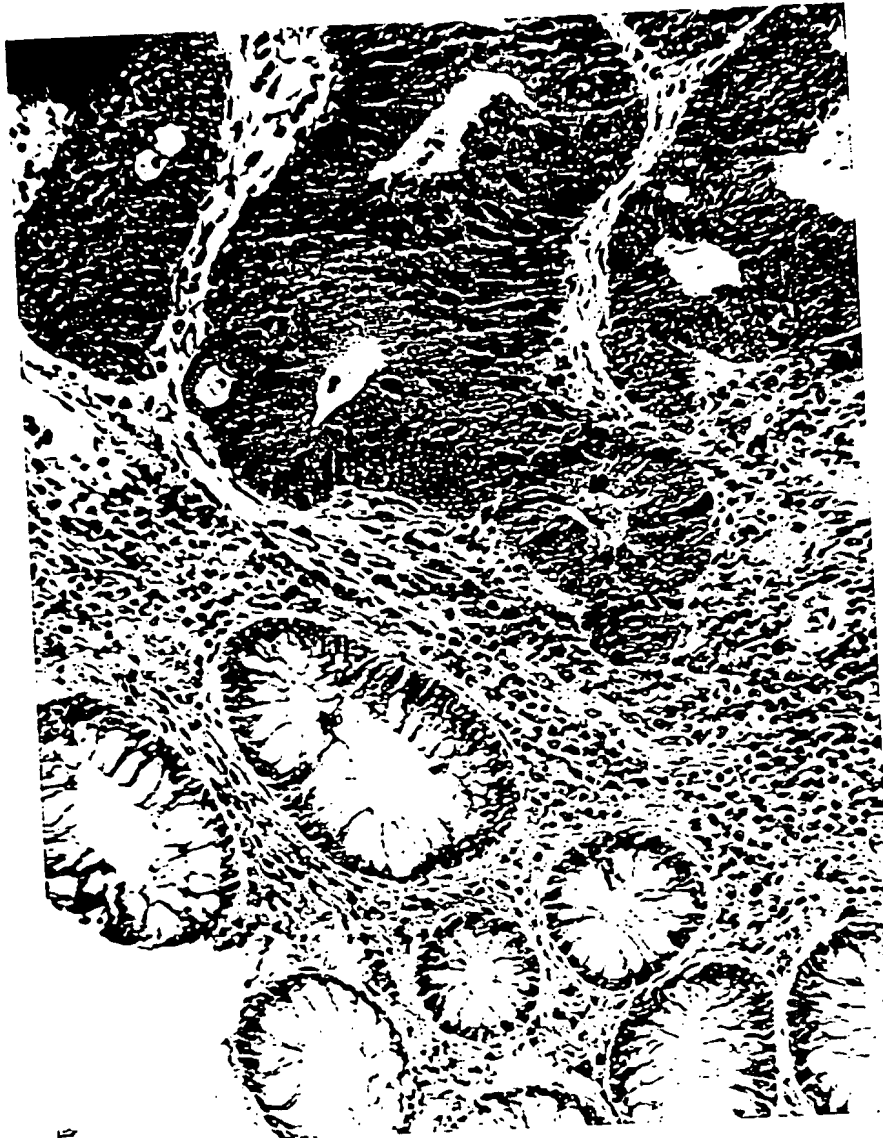


FIG. 15B

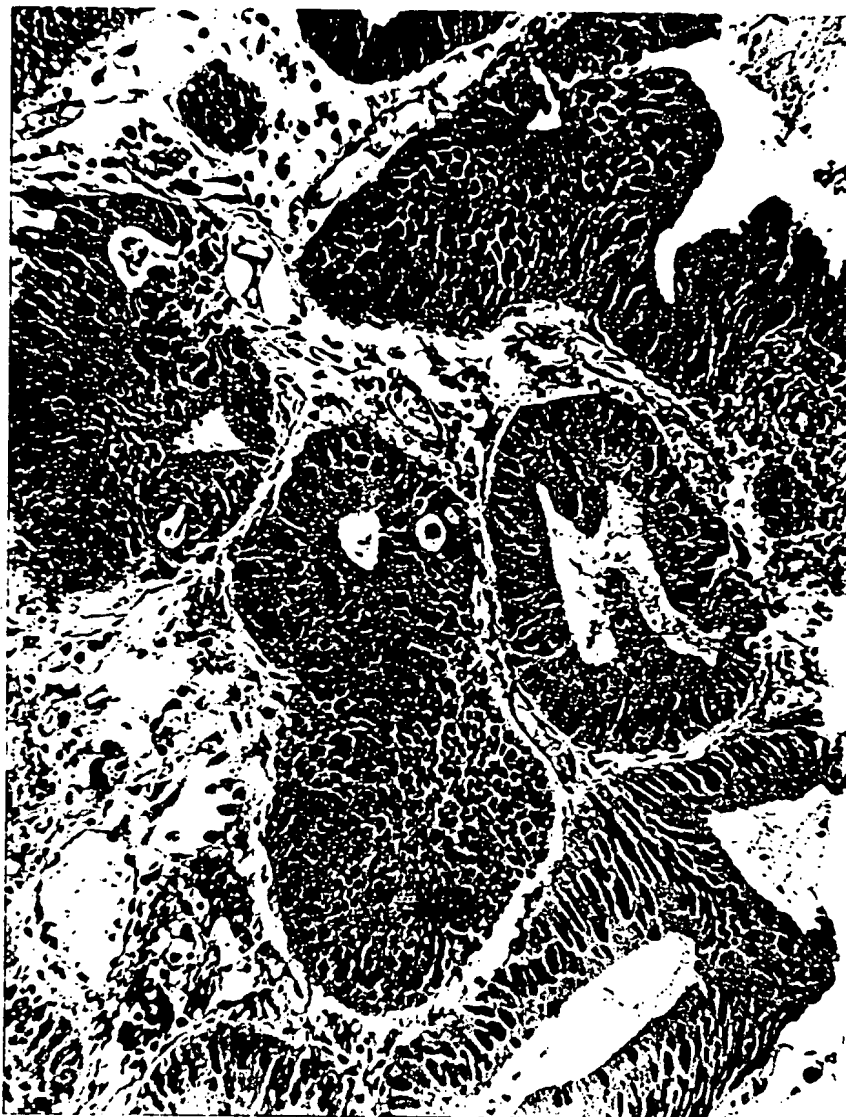


FIG. 16A



FIG. 16B



FIG. 17

10 * GGAATTCGG CCGCCCTCG CCGCCCTCG CTGTGGGCG CTGTGGGCG TTGCTGGCGT CTGGCTGTGC TGGCGGGCC CCGGCTATGC ATTGCAGTGT
 P A L R P A L L W A L L A L L L C C A A P A H A L Q C>
 110 * 100 * CGAGATGGT ATGAACCTCG TGTAAATGAA GGAATGTGT TTACTTACCA CAATGCACA GGATCTCCA AATGTCCAGA AGGCTTCTTG
 R D G Y E P C V N E G M C V T Y H N G T G Y C K C P E G F L>
 120 * 130 * 140 * 150 * 160 * 170 * 180 *
 190 * GTCAACATCG AGACCCCTGT GAGAGAACC GCTGCCAGAA TGGTGGGACT TGTGTGGCC AGGCCATGCT GGGGAAGCC
 G E Y C Q H R D P C E K N R C C Q N G G T C V A Q A M L G K A>
 200 * 210 * 220 * 230 * 240 * 250 * 260 * 270 *
 280 * ACGTGGCGAT GTGCCTCAGG GTTTACAGGA GAGGACTGCC AGTACTCAAC ATCTCATCCA TGCTTTAGT CTGACCCCTG CCTGAATGGC
 T C R C A S G F T G E D C Q Y S T S H P C F V S R P C L N G>
 290 * 300 * 310 * 320 * 330 * 340 * 350 * 360 *
 370 * GGCACATGCC ATATGCTCAG CCGGATACC TATGACTGCA CCTCTCACT CCGGTTTACA GGTAGGAGT GCCAATGGAC GGATGCCCTGC
 G T C H M L S R D T Y E C T C Q V G F T G K E C Q W T D A C>
 380 * 390 * 400 * 410 * 420 * 430 * 440 * 450 *
 460 * CTGTCTCATC CCTGTGCAA TGGAGTACC TGTACCACTG TGGCAACCA GTTCTCTGTC AAATGCTCA CAGGCTTAC AGGGCAGAA
 L S H P C A N G S T C T T V A N Q F S C K C L T G F T G Q K>
 470 * 480 * 490 * 500 * 510 * 520 * 530 * 540 *
 550 * TGTGAGACTG ATGTCAATGA GTGTGACATT CCAGGACACT GCCAGCATGG TGGCACCTGC CTCACCTGC CTGCTTCTTA CCAGTGGCAG
 C E T D V N E C D I P G H C Q H G G T C L N L P G S Y Q C Q>
 560 * 570 * 580 * 590 * 600 * 610 * 620 * 630 *
 640 * TGGCCCTCAGG GCTTCACAGG CCACTACTGT GACAGCTGT ATGTGCCCTG TGCACCTTCA CTTGTGTCA ATGGAGGCAC CTGTGGCAG
 C P Q G F T G Q Y C D S L Y V P C A P S P C V N G G T C R Q>
 650 * 660 * 670 * 680 * 690 * 700 * 710 * 720 *
 730 * ACTGGTGAAT TCACCTTTGA GTGCACTGC CTTCAGGTT TTGAAGGAG CACCTGTGAG AGCAATATG ATGACTGCC TAACACAGG
 T G D F T F E C N C L P G F E G S T C E R N I D D C P N H R>
 740 * 750 * 760 * 770 * 780 * 790 * 800 * 810 *

FIG. 17 CONT'D

| | | | | | | | | |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| 820 | 830 | 840 | 850 | 860 | 870 | 880 | 890 | 900 |
| TGTCAGATG | GAGGGTTG | TGTGATGG | GTCAACAT | ACAATGCG | CTGTCCCG | CAATGACAG | GACAGTTCG | CACAGAGAT |
| C Q N | G G V C | V D G | V N T | Y N C R | C P P | Q W T | G Q F C | T E D> |
| 910 | 920 | 930 | 940 | 950 | 960 | 970 | 980 | 990 |
| GTGATGAAT | GCCTGCTGA | GCCCAATGC | TGTCAAATG | GGGCACTG | TGCCAAGCG | AMTGAGGCT | ATGCTGTGT | ATGTGTCAAC |
| V D E | C L L Q | P N A | C Q N | G G T C | A N R | N G G | Y G C V | C V N> |
| 1000 | 1010 | 1020 | 1030 | 1040 | 1050 | 1060 | 1070 | 1080 |
| GGCTGGAGTG | GAGATGACTG | CAGTGAGAAC | ATTGATGATT | GTGCTTCC | CTTCTGTACT | CCAGGCTCCA | CCTGCATCGA | CCGTGTGCC |
| G W S | G D D C | S E N | I D D | C A F A | S C T | P G S | T C I D | R V A> |
| 1090 | 1100 | 1110 | 1120 | 1130 | 1140 | 1150 | 1160 | 1170 |
| TCCTTCTCTT | GCATGTGCC | AGAGGGGAAG | GCAGGTCTCC | TGTGTCACT | GGATGATGCA | TGCATCAGCA | ATCCTTGCCA | CAAGGGGCA |
| S F S | C M C P | E G K | A G L | L C H L | D D A | C I S | N P C H | K G A> |
| 1180 | 1190 | 1200 | 1210 | 1220 | 1230 | 1240 | 1250 | 1260 |
| CTGTGTGACA | CCAACTCCCT | AAATGGGCA | TATATTGCA | CCTGCCACA | AGGCTACAAA | GGGGTGAAT | GCACAGAAGA | TGTGATGAA |
| L C D | T N P L | N G Q | Y I C | T C P Q | G Y K | G A D | C T E D | V D E> |
| 1270 | 1280 | 1290 | 1300 | 1310 | 1320 | 1330 | 1340 | 1350 |
| TGTGCAATGG | CCATAGCAA | TCCTTGTGAG | CATGCAGAA | AATGTGTGA | CACGATGCG | GCCTTCCACT | GTGATGTCT | GAAGGGTAT |
| C A M | A N S N | P C E | H A G | K C V N | T D G | A F H | C E C L | K G Y> |
| 1360 | 1370 | 1380 | 1390 | 1400 | 1410 | 1420 | 1430 | 1440 |
| GCAGGACCTC | GTGTGAGAT | GGACATCAAT | GATGCAAT | CAGACCCCTG | CCAGATGAT | GCTACCTGTC | TGGATAGAT | TGGAGCTTC |
| A G P | R C E M | D I N | E C H | S D P C | Q N D | A T C | L D K I | G G F> |
| 1450 | 1460 | 1470 | 1480 | 1490 | 1500 | 1510 | 1520 | 1530 |
| ACATGTCTGT | GCATGCCAGG | TTTCAAGGT | GTGCATTGTG | AATTAGAAAT | AAATGATGT | CAGAGCAACC | CTGTGTGAA | CAATGGGCAG |
| T C L | C M P G | F K G | V H C | E L E I | N E C | Q S N | P C V N | N G Q> |
| 1540 | 1550 | 1560 | 1570 | 1580 | 1590 | 1600 | 1610 | 1620 |
| TGTGTGATA | AAGTCAATCG | TTTCCAGTGC | CTGTGCTCTC | CTGGTTTCAC | TGGGCCAGTT | TGCCAGATTG | ATATTGATGA | CTGTTCAGT |
| C V D | K V N R | F Q C | L C P | P G F T | G P V | C Q I | D I D D | C S S> |

FIG. 17 CONT'D

| | | | | | | | | |
|------------|-------------|------------|------------|-------------|------------|------------|-------------|------------|
| 1630 | 1640 | 1650 | 1660 | 1670 | 1680 | 1690 | 1700 | 1710 |
| ACTCCGTC | TGAATGGGC | AAAGTGTATC | GATCACCGA | ATGGCTATGA | ATGCCAGTGT | GCCACAGTGT | TCACTGGTGT | GTGTGTGAG |
| T P C | L N G A | R C I D | H P N G | Y E C Q | C A T G | F T G V | L C E | |
| 1720 | 1730 | 1740 | 1750 | 1760 | 1770 | 1780 | 1790 | 1800 |
| GAGAACATG | ACAACGTGA | COCGATCCT | TGCCACCATG | GTCAGTGTCA | GGATGGTATT | GATTCCTACA | CCTGCATCTG | CAATCCCGG |
| E N I | D N C D | P D P C | H H G Q | C Q D G | I D S Y | T C I C | N P G | |
| 1810 | 1820 | 1830 | 1840 | 1850 | 1860 | 1870 | 1880 | 1890 |
| TACATGGGG | CCATCTGCAG | TGACCAGATT | GATGAATGTT | ACAGCAGCCC | TTGCTGAAC | GATGGTGGCT | GCAATTGACCT | GGTCAATGGC |
| Y M G | A I C S | D Q I D | E C Y S | S P C L | N D G R | C I D L | V N G | |
| 1900 | 1910 | 1920 | 1930 | 1940 | 1950 | 1960 | 1970 | 1980 |
| TACAGTCCA | ACTGCCAGCC | AGGCAGGTCA | GGGTTAATT | GTGAATTA | TTTTCATGAC | TGTGCAAGTA | ACCCTTGTAI | CCATGGAATC |
| Y Q C | N C Q P | G T S G | V N C E | I N F D | D C A S | N P C I | H G I | |
| 1990 | 2000 | 2010 | 2020 | 2030 | 2040 | 2050 | 2060 | 2070 |
| TGTATGGATG | GCATTAAATCG | CTACACTTGT | GTCTGCTCAC | CAGGATTCAC | AGGGCAGAGA | TGTAACATTG | ACATTGATGA | GTGTGCTCC |
| C M D | G I N R | Y S C V | C S P G | F T G Q | R C N I | D I D E | C A S | |
| 2080 | 2090 | 2100 | 2110 | 2120 | 2130 | 2140 | 2150 | 2160 |
| AATCCTGTC | GCAAGGGTGC | AACATGTATC | AACGGTGTGA | ATGGTTTCGG | CTGTATATGC | CCCGAGGGAC | CCCATCACC | CAGCTCCTAC |
| N P C | R K G A | T C I N | G V N G | F R C I | C P E G | P H P S | C Y | |
| 2170 | 2180 | 2190 | 2200 | 2210 | 2220 | 2230 | 2240 | 2250 |
| TCACAGGTGA | ACGATGCCT | GAGCAATCCC | TGCATCCATG | GAACTGTAC | TGGAGTCTC | AGTGCATATA | AGTGTCTCTG | TGATGCAGGC |
| S Q V | N E C L | S N P C | I H G N | C T G G | L S G Y | K C L C | D A G | |
| 2260 | 2270 | 2280 | 2290 | 2300 | 2310 | 2320 | 2330 | 2340 |
| TGGGTGGCA | TCAACTGTGA | AGTGCACAAA | AATGAATGCC | TTTTCGAATCC | ATGCCAGAAT | GGAGGAACTT | GTGCATCTCT | GGTGAATGGA |
| W V G | I N C E | V D K N | E C L S | N P C Q | N G G T | C D N L | V N G | |
| 2350 | 2360 | 2370 | 2380 | 2390 | 2400 | 2410 | 2420 | 2430 |
| TACAGGTGA | CTTCCAAGAA | GGCCTTTAA | GGCTATTAAT | GCCAGGTGAA | TATTGATGAA | TGTGCTCAA | ATCCATGCT | GAACTAAGGA |
| Y R C | T C K F | G F K G | Y N C Q | V N I D | E C A S | N P C L | N Q G | |
| 2440 | 2450 | 2460 | 2470 | 2480 | 2490 | 2500 | 2510 | 2520 |

FIG. 17 CONT'D

*
 ACCTGCTTTG ATGACATAAG TGGCTACACT TGCACACTG TCTGCCATA CACAGGCAAG AATTGTGAGA CAGTATGGC TCCCTGTGCC *
 T C F D D I S G Y T C H C V L P Y T G K N C Q T V L A P C S>
 2530 * 2540 2550 2560 2570 2580 2590 2600 2610
 *
 CCAACCCCTT GTGAGATGC TGTCTTTGC AAGAGTCAC CAATTTTGA GAGTATACT TGTGTGTG CTTCTGCTG GCAAGTTCAG *
 P N P C E N A A V C K E S P N F E S Y T C L C A P G W Q G Q>
 2620 * 2630 2640 2650 2660 2670 2680 2690 2700
 *
 CGGTGTACCA TTGACATGA CGAGTGTATC TCCAAGCCCT GCATGAACCA TGGTCTCTGC CATACACCC AGGGCAGCTA CATGTGTGAA *
 R C T I D I D E C I S K P C M N H G L C H N T Q G S Y M C E>
 2710 * 2720 2730 2740 2750 2760 2770 2780 2790
 *
 TGTCCACAG GCTTCAGTGG TATGACTGT GAGGAGGACA TTGATCACTG CCTTGCCAT CCTTGCCAGA ATGAGGTTT CTTGTATGAT *
 C P P G F S G M D C E E D I D D C L A N P C Q N G G S C M D>
 2800 * 2810 2820 2830 2840 2850 2860 2870 2880
 *
 GGAGTGAATA CTTTCTCTG CTTCTGCTT CCGGTTTCA CTGGGATTA GTGCCAGACA GACATGATG AGTGTCTGAG TGAACCTGT *
 G V N T F S C L C L P G F T G D K C Q T D M N E C L S E P C>
 2890 * 2900 2910 2920 2930 2940 2950 2960 2970
 *
 AAGAATGAG GGACCTGCTC TCACTAGTTC AACAGTTACA CTTGCCAGTG CCAGGCAGGA TTTGATGAG TCCATTGTGA GAACACATC *
 K N G G T C S D Y V N S Y T C K C Q A G F D G V H C E N N I>
 2980 * 2990 3000 3010 3020 3030 3040 3050 3060
 *
 AATGAGTGCA CTGAGAGCTC CTGTTTCAAT GGTGGCACAAT GGTGTGATG GATTAATCC TTCTGTGCT TGTGCCCTGT GGGTTTCACT *
 N E C T E S S C F N G G T C V D G I N S F S C L C P V G F T>
 3070 * 3080 3090 3100 3110 3120 3130 3140 3150
 *
 GGATCTTCT GCCTCCATGA GATCAATGAA TGCAGCTCTC ATCATGCTT GAATGAGGA ACCTGTGTG ATGCCCTGG TACCTACCGC *
 G S F C L H E I N E C S S H P C L N E G T C V D G L G T Y R>
 3160 * 3170 3180 3190 3200 3210 3220 3230 3240
 *
 TGCAGCTGCC CCGTGGGCTA CACTGGGAAA AACTGTCAGA CCGTGGTGA TCTCTGCACT CGGTCTCCAT GTAAAAACAA AGGTACTTGT *
 C S C P L G Y T G K N C Q T L V N L C S R S P C K N K G T C>
 3250 * 3260 3270 3280 3290 3300 3310 3320 3330
 *

FIG. 17 CONT'D

GTTCAGAAA AACGAGATC CAGTGCCTA TGTCCATCTG GATGGGTGG TGCCTATTGT GAGGTGCCCA ATGTCTCTTG TGACATAGCA
 V Q K K A E S Q C L C P S G W A G A Y C D V P N V S C D I A>
 3340 * 3350 * 3360 * 3370 * 3380 * 3390 * 3400 * 3410 * 3420 *
 GCCTCCAGGA GAGGTGTCT TGTTCACAC TTGTGCCAGC ACTCAGGTGT CTGCATCAAT GCTGGCAACA CGCATTAAGT TCAGTGCCTC
 A S R R G V L V E H L C Q H S G V C I N A G N T H Y C Q C P>
 3430 * 3440 * 3450 * 3460 * 3470 * 3480 * 3490 * 3500 * 3510 *
 CTGGGCTATA CTGGGAGCTA CTGTGAGGAG CAACTCGATG AGTGTGGTC CAACCCCTGC CAGCAGGGG CAACATGCAG TGACTTCATT
 L G Y T G S Y C E E Q L D E C A S N P C Q H G A T C S D F I>
 3520 * 3530 * 3540 * 3550 * 3560 * 3570 * 3580 * 3590 * 3600 *
 GGTGGATACA GATGGAGTG TGTCCAGGC TATCAGGTG TCAACTGGA GTATGAGTG GATGAGTGC AGATTCAGCC CTGCCAGAT
 G G Y R C E C V P G Y Q G V N C E Y E V D E C Q N Q P C Q N>
 3610 * 3620 * 3630 * 3640 * 3650 * 3660 * 3670 * 3680 * 3690 *
 GGAGGCACT GTATTGACCT TGTGAACCT TTCAAGTGT CTTCGCCAGC AGGCACTGG GGCTACTCT GTCAAGAGAA CATTGATGAC
 G G T C I D L V N H F K C S C P P G T R G L L C E E N I D D>
 3700 * 3710 * 3720 * 3730 * 3740 * 3750 * 3760 * 3770 * 3780 *
 TGTGCCCGG GTCCCATTTG CCTTAATGTT GTTCAGTGA TCGATAGAT TGGAGCTAC AGTGTCTGT GTTGCCTGG CTTCCTGGG
 C A R G P H C L N G G Q C M D R I G G Y S C R C L P G F A G>
 3790 * 3800 * 3810 * 3820 * 3830 * 3840 * 3850 * 3860 * 3870 *
 GACGCTTGT AGGGAGCAT CAACGAGTGC CTCTCCACC OCTGAGCTC TGAGGGCAGC CTGCACTGA TACAGCTAC CAATGACTAC
 E R C E G D I N E C L S N P C S S E G S L D C I Q L T N D Y>
 3880 * 3890 * 3900 * 3910 * 3920 * 3930 * 3940 * 3950 * 3960 *
 CTGTGTGTT GCCGTAGTC CTTTACTGC CGGCACTGT AAACCTTGT CGATGTGT CCCAGATGC COTGCCGAA TGGAGGACT
 L C V C R S A F T G R H C E T F V D V C P Q M P C L N G G T>
 3970 * 3980 * 3990 * 4000 * 4010 * 4020 * 4030 * 4040 * 4050 *
 TGTGCTGTT GCCGTACAT GCCGTGTTT TTTATTTCC GTTGTCCC GGAATTTCC GGGGCAAGT GCCAGAGCAG CTGTGACAA
 C A V A S N M P D G F I C R C P P G F S G A R C Q S S C G Q>
 4060 * 4070 * 4080 * 4090 * 4100 * 4110 * 4120 * 4130 * 4140 *
 GTGAAATGTA GGAAGGGGA GCAGTGTGTG CACACCGCT CTGGACCCG CTGCTTCTGC CCGAGTCCC GGCAGTCCGA GTCAGGCTGT

FIG. 17 CONT'D

V K C R K G E Q C V H T A S G P R C F C P S P R D C E S G C
 4150 * 4160 * 4170 * 4180 * 4190 * 4200 * 4210 * 4220 * 4230 *
 GCCAGTAGCC CTTGCCAGCA GGGGGCAGC TGGCACCCTC AGGCCAGCC TCCCTATTAC TCCCTGCCAGT GTGCCCCAAC ATTCTGGGT
 A S S P C Q H G G S C H P Q R Q P P Y Y S C Q C A P P F S G
 4240 * 4250 * 4260 * 4270 * 4280 * 4290 * 4300 * 4310 * 4320 *
 AGCGCTGTG AACTCTACAC GGCACCCCC AGCACCCCTC CTGCCACTG TCTGAGCCAG TATTGTCCG ACAAGCTCG GGATGCCGTC
 S R C E L Y T A P P S T P P A T C L S Q Y C A D K A R D G V
 4330 * 4340 * 4350 * 4360 * 4370 * 4380 * 4390 * 4400 * 4410 *
 TGTGATGAG CCTGCAACAG CCATGCCCTGC CAGTGGATG GGGGTGACTG TTCTCTCACC ATGGAGAAC CCTGGGCCA CTGCTCTCC
 C D E A C N S H A C Q W D G G D C S L T M E N P W A N C S S
 4420 * 4430 * 4440 * 4450 * 4460 * 4470 * 4480 * 4490 * 4500 *
 CCACCTTCCCT GCTGGGATTA TATCAACAAC CAGTGTGATG AGCTGTGCAA CAGGTGCGAG TGCCTGTGTG ACACTTTGA ATGCCAGGG
 P L P C W D Y I N N Q C D E L C N T V E C L F D N F E C Q G
 4510 * 4520 * 4530 * 4540 * 4550 * 4560 * 4570 * 4580 * 4590 *
 AACAGCAAGA CATGCAAGTA TGACAATAC TGTGCAACC ACTTCAAGA CAACACTGT AACAGGGGT GCAACAGTGA GGAGTGTGT
 N S K T C K Y D K Y C A D H F K D N H C N Q G C N S E E C G
 4600 * 4610 * 4620 * 4630 * 4640 * 4650 * 4660 * 4670 * 4680 *
 TGGGATGGC TGGACTGTG TGTGACCAA CTGAGAAC CCTGAGAAC TGGCAGAGG TACCCTGTGT ATTGTGTAT TGTGCCACC TGAACAATG
 W D G L D C A A D Q P E N L A E G T L V I V V L M P P E Q L
 4690 * 4700 * 4710 * 4720 * 4730 * 4740 * 4750 * 4760 * 4770 *
 CTCAGGATG CTCGACGCTT CTGCGGGCA CTGGGTACCC TGTCCACAC CAACCTGGC ATTAAGCGG ACTCCAGGG GGAACATG
 L Q D A R S F L R A L G T L L H T N L R I K R D S Q G E L M
 4780 * 4790 * 4800 * 4810 * 4820 * 4830 * 4840 * 4850 * 4860 *
 GTGTACCCCT ATTATGGTGA GAAGTCAGCT GCTATGAAGA AACAGAGAT GACAGCAGA TCCCTTCTG GTGAACAAGA ACAGGAGTG
 V Y P Y Y G E K S A A M K K Q R M T R R S L P G E Q E V
 4870 * 4880 * 4890 * 4900 * 4910 * 4920 * 4930 * 4940 * 4950 *
 GCTGGCTTA AGCTTTCTT GCAATTCAC AACCCCGAGT GTGTTCAAGA CTCAGACCAC TGTTCAGA ACAGGATGC ACCAGAGCT
 A G S K V F L E I D N R Q C V Q D S D H C F K N T D A A A

FIG. 17 CONT'D

| | | | | | | | | |
|---------------|---------------------------|----------------------|----------------------|------------|------------|------------|-------------|------------|
| 4960 | 4970 | 4980 | 4990 | 5000 | 5010 | 5020 | 5030 | 5040 |
| CTCTGGCCT | CTCAGGCAT | ACAGGGACC | CTGTCAATAC | CTCTTGTC | TGTCCTCAGT | GAATCCCTCA | CTCCAGAACG | CACTCAGCTC |
| L L A S H A I | Q G T L S Y P L V S | V V S | E S L T P E R T Q L> | | | | | |
| 5050 | 5060 | 5070 | 5080 | 5090 | 5100 | 5110 | 5120 | 5130 |
| CTCTATCTCC | TTCCTGTTC | TGTCATC | ATTCTGTTA | TATCTGCT | GGGGTATTC | ATGCCAAAC | GAAGCGTAA | GCATGGCTCT |
| L W L L A V A | V V I I L F I I L L G V I | M A K R K R K H G S> | | | | | | |
| 5140 | 5150 | 5160 | 5170 | 5180 | 5190 | 5200 | 5210 | 5220 |
| CTCTGGCTGC | CTGAAGTTT | CACCTTCCG | CGAGATCCA | GCAATCACA | GGTCGTGAG | CCAGTGGAC | AGGATGCTGT | GGGGCTGAAA |
| L W L P E G F | T L R R D A S N H K R R E | P V G Q D A V G L K> | | | | | | |
| 5230 | 5240 | 5250 | 5260 | 5270 | 5280 | 5290 | 5300 | 5310 |
| AATCTCTCAG | TGCAAGTCTC | AGAAGCTAAC | CTAATTGGTA | CTGGAACAAG | TGAACACTGG | GTCCATCATG | AAGGGCCCCA | GCCHAAGAAA |
| N L S V Q V S | E A N L I G T G T S E H W | V D D E G P Q P K K> | | | | | | |
| 5320 | 5330 | 5340 | 5350 | 5360 | 5370 | 5380 | 5390 | 5400 |
| GTAAGGCTG | AAGATGAGGC | CTTACTCTCA | GAAGAAGATG | ACCCCATTTA | TCCAGGGCCA | TGCACACAGC | AGCACCCTTGA | AGCTGCACAC |
| V K A E D E A | L L S E E D D P I D R R P | W T Q Q H L E A A D> | | | | | | |
| 5410 | 5420 | 5430 | 5440 | 5450 | 5460 | 5470 | 5480 | 5490 |
| ATCCGTAGGA | CACCATCGCT | GGCTCTCACC | CCTCCTCAGG | CAGAGCAGGA | GGTGGATGTG | TTAGATGTGA | ATGTCCGTGG | CCCAGATGGC |
| I R R T P S L | A L T P P Q A E Q E V D V | L D V N V R G P D G> | | | | | | |
| 5500 | 5510 | 5520 | 5530 | 5540 | 5550 | 5560 | 5570 | 5580 |
| TGCACCCCAT | TGATGTTGCG | TTCTCTCCGA | GGAGGCAGCT | CAGATTTCAG | TGATGAAGAT | GAAGATGCAG | AGGACTCTTC | TGCTAACATC |
| C T P L M L A | S L R G G S S D L S D E D | E D A E D S S A N I> | | | | | | |
| 5590 | 5600 | 5610 | 5620 | 5630 | 5640 | 5650 | 5660 | 5670 |
| ATCACAGACT | TGGTCTACCA | GGGTGCCAGC | CTCCAGGCCC | AGACAGACCG | GACTGGTGAG | ATGGCCCTGC | ACCTTGCAGC | CCGCTACTCA |
| I T D L V Y Q | G A S L Q A Q T D R T G E | M A L H L A A R Y S> | | | | | | |
| 5680 | 5690 | 5700 | 5710 | 5720 | 5730 | 5740 | 5750 | 5760 |
| CGGGCTGATG | CTGCCAAGCG | TCTCTGGAT | GCAGTGCAG | ATGCCAATGC | CCAGGACAAC | ATGGCCGCT | GTCCACTCCA | TGCTGCAGTG |
| R A D A A K R | L L D A G A D A N A Q D N | M G R C P L H A A V> | | | | | | |

FIG. 17 CONT'D

5770 * 5780 5790 5800 5810 5820 5830 5840 5850 *
GCAGCTGATG CCCAAGGTGT CTTCAGATT CTGATTGCA ACCGAGTAAC TGATCTAGAT GGCAGGATGA ATGATGGTAC TACACCCCTG
A A D A Q G V F Q I L I R N R V T D L D A R M N D G T T P L>
5860 * 5870 5880 5890 5900 5910 5920 5930 5940 *
ATCCTGGCTG CCCGCTGGC TGTGGAGGA ATGGTGCCAG AACTGATCAA CTGCCAAGG GATGTGAATG CAGTGGATGA CCATGGAAAA
I L A A R L A V E G M V A E L I N C Q A D V N A V D D H G K>
5950 * 5960 5970 5980 5990 6000 6010 6020 6030 *
TCTGCTCTTC ACTGGGCAGC TGCTGTCAAT AATGTGAGG CAACTCTTT GTTGTGAAA AATGGGGCCA ACCGAGACAT GCAGGACAC
S A L H W A A A V N N V E A T L L L L K N G A N R D M Q D N>
6040 * 6050 6060 6070 6080 6090 6100 6110 6120 *
AAGGAAGAGA CACCTCTGTT TCTGTCTGCC CGGAGGGGA GCTATGAAGC AGCCAAGTC CTGTAGACC ATTTGOCAA TCGAGACATC
K E E T P L F L A A R E G S Y E A A K I L L D H F A N R D I>
6130 * 6140 6150 6160 6170 6180 6190 6200 6210 *
ACAGACCAATA TGGATCGTCT TCCCGGGAT GTGGCTGGG ATGCATGCA CCATGACATT GTGGCTTC TGGATGATA CAATGTGACC
T D H M D R L P R D V A R D R M H H D I V R L L D E Y N V T>
6220 * 6230 6240 6250 6260 6270 6280 6290 6300 *
CCAGCCCTC CAGGCACGT GTGACTTCT GCTCTCTCAC CTGTCACTG TGGGCCCAAC AGATCTTTC TCAGCCCTGAA GCACACCCA
P S P P G T V L T S A L S P V I C G P N R S F L S L K H T P>
6310 * 6320 6330 6340 6350 6360 6370 6380 6390 *
ATGGGCAAGA AGTCTAGACG GCCGAGTGC AGAGTACCA TGCCTACTAG CCTCCCTAAC CTTCCCAAGG AGCCAAGGA TGCCAAGGT
M G K K S R R P S A K S T M P T S L P N L A K E A K D A K G>
6400 * 6410 6420 6430 6440 6450 6460 6470 6480 *
AGTAGGAGGA AGAAGTCTCT GAGTGAGNAG GTCCAACGT CTGAGAGTTC AGTAACTTAA TCCCTGTGTTG ATTCCTTAGA ATCTCCTCAC
S R R K K S L S E K V Q L S E S S V T L S P V D S L E S P H>
6490 * 6500 6510 6520 6530 6540 6550 6560 6570 *
ACGTATGTTT CCGACACCAC ATCCTCTCCA ATGATTACAT CCCCTGGAT CTTACAGGCC TCACCCAACC CTATGTGC CACTGCCGCC
T Y V S D T T S S P M I T S P G I L Q A S P N P M L A T A A>
6580 6590 6600 6610 6620 6630 6640 6650 6660

| | | | | | | | | | |
|------------|------------|------------|-----------|------------|------------|------------|------------|------------|---|
| CCTCTGCC | CAGTCCAG | CCAGCATGA | CTAATCTTT | CTAATCTTCA | TGAATGCCAG | CCTTTGGCAC | ATGGGGCCAG | CAGTGTGCT | * |
| P P A | P V B A | Q H A | L S F | S N L H | E M Q | P L A | H G A S | T V L> | |
| 6670 | 6680 | 6690 | 6700 | 6710 | 6720 | 6730 | 6740 | 6750 | |
| CCCTCAGTGA | GCCAGTGTCT | ATCCACAC | CACATGTGT | CTCCAGGAG | TGGAGTGTCT | GGAAGCTTGA | GTAGGTCCA | TCCAGTCCA | * |
| P S V | S Q L L | S H H | H I V | S P G S | G S A | G S L | S R L H | P V P> | |
| 6760 | 6770 | 6780 | 6790 | 6800 | 6810 | 6820 | 6830 | 6840 | |
| GTCCAGCAG | ATTGATGAA | CCGATGGAG | GTAATGAGA | CCAGTACAA | TGAGATGTT | GGTATGTCC | TGGCTCCAGC | TGAGGCCAC | * |
| V P A | D W M N | R M E | V N E | T Q Y N | E M F | G M V | L A P A | E G T> | |
| 6850 | 6860 | 6870 | 6880 | 6890 | 6900 | 6910 | 6920 | 6930 | |
| CATCTGGCA | TAGCTCCCA | GAGCAGGCA | CCTGAAGGA | AGCACATAC | CACCCCTCG | GAGCCCTTC | CCCCATGT | GACTTCCAG | * |
| H P G | I A P Q | S R P | P E G | K H I T | T P R | E P L | P P I V | T F Q> | |
| 6940 | 6950 | 6960 | 6970 | 6980 | 6990 | 7000 | 7010 | 7020 | |
| CTCATCTTA | AAGCAGTAT | TGCCAACCA | CGGGGGCTC | CCAGCTCA | GTCACCTGC | CCTCCAGCTG | TTGGGGGCC | CCTGCCACC | * |
| L I P | K G S I | A Q P | A G A | P Q P Q | S T C | P P A | V A G P | L P T> | |
| 7030 | 7040 | 7050 | 7060 | 7070 | 7080 | 7090 | 7100 | 7110 | |
| ATGTACAGA | TTCCAGAAAT | GGCCGGTTG | CCAGTGTGG | CTTTGCCAC | TGCCATGATG | CCCCAGCAGG | ACGGCCAGT | AGCTCAGACC | * |
| M Y Q | I P E M | A R L | P S V | A F P T | A M M | P Q Q | D G Q V | A Q T> | |
| 7120 | 7130 | 7140 | 7150 | 7160 | 7170 | 7180 | 7190 | 7200 | |
| ATTCTCCAG | CCTATCATCC | TTTCCAGCC | TCTGTGGCA | AGTACCCAC | ACCCCTTCA | CAGCAGATT | ATGCTTCTC | AAATGCTGT | * |
| I L P | A Y H P | F P A | S V G | K Y P T | P P S | Q H S | Y A S S | N A A> | |
| 7210 | 7220 | 7230 | 7240 | 7250 | 7260 | 7270 | 7280 | 7290 | |
| GAGCGACAC | CCAGTCACG | TGTCACCTC | CAGGTGAGC | ATCCCTACCT | GACACCATCC | CCAGATCTC | CTGACCATGT | GTCAGTTCA | * |
| E R T | P S H S | G B L | Q G E | H P Y L | T P S | P E S | P D Q W | S S S> | |
| 7300 | 7310 | 7320 | 7330 | 7340 | 7350 | 7360 | 7370 | 7380 | |
| TCACCCCACT | CTGCTTCTGA | CTGTCTAGAT | GTGACACCA | GGCTACCCC | TGGGGTCT | GGAGGAGTCT | ACGGGGGACC | TGGGACACAC | * |
| S P B | S A S D | W S D | V T T | S P T P | G G A | G G G | Q R G P | G T H> | |
| 7390 | 7400 | 7410 | 7420 | 7430 | 7440 | 7450 | 7460 | 7470 | |
| | | * | * | * | * | * | * | * | |

FIG. 17 CONT'D

ATGTCGAGC CACCACACAA CAACATGCAG GTTATGCGT GAGAGAGTCC ACCTCCAGTG TAGAGACATA ACTGACITTT GTAATGCTG
 M S E P P H N N M Q V Y A>
 7480 * 7490 * 7500 * 7510 * 7520 * 7530 * 7540 * 7550 * 7560 *
 CTGAGGACA AATGAAGTC ATCCGGGAGA GAATGAAGA AATCTCTGA GCCAGCTTCT AGAGGTAGA AAGAGAAGAT GTTCTTATTC
 7570 * 7580 * 7590 * 7600 * 7610 * 7620 * 7630 * 7640 * 7650 *
 AGATAATCA AGAGAGCAA TTCGTGAGT TCACTGGGTA TCTGCAAGG TTAATGATA TTCTAATCTA ATAAGACAAG TTTGTGGAAA
 7660 * 7670 * 7680 * 7690 * 7700 * 7710 * 7720 * 7730 * 7740 *
 TGAAGATGA ATACAAGCT TGGGTCCATG TTTACTCTCT TCTATTTGGA GAATAGAGG GATGCTTATT GAAGCCGAGA CATCTTGCA
 7750 * 7760 * 7770 * 7780 * 7790 * 7800 * 7810 * 7820 * 7830 *
 GCTTGAGTG CATTTTAAG CCTGCAGGCT TCTGCCATAT CCATGAGAAG ATTCTACACT AGGTCTCTGT TGGGAATTAT GCCCTGGGAT
 7840 * 7850 * 7860 * 7870 * 7880 * 7890 * 7900 * 7910 * 7920 *
 TCTGCCGAA TTGAAGTACG CATCTCTCC TCTCTTGACA TTTCTTTGTC TTCAATTTGGT GCTTTTGGTT TTGCACCTCT CCGTGAATGT
 7930 * 7940 * 7950 * 7960 * 7970 * 7980 * 7990 * 8000 * 8010 *
 AGCCCTACCA GCATGTTATA GGGCAAGACC TTTGTGCTT TGATCAATCT GGGCCATGAA AGCAACTTGG GTCCTCTTTC CCTCTCTGTC
 8020 * 8030 * 8040 * 8050 * 8060 * 8070 * 8080 * 8090 * 8100 *
 TTCCCGGTAT CCCTTGGAGT CTCACAAGGT TTACTTTGGT ATGGTCTCTCA GCACAAACCT TTCAAGTAGG TTGTTTCTTT GGAATATGGA
 8110 * 8120 * 8130 * 8140 * 8150 * 8160 * 8170 * 8180 * 8190 *
 CATACTGTAT TGTGTTCTCC TGCAATATATC ATTCTGAG AGAGAGGGG AGAAGATAC TTTTCTTCAA CAATTTTGG GGGCAGGAGA
 8200 * 8210 * 8220 * 8230 * 8240 * 8250 * 8260 * 8270 * 8280 *
 TCCCTTCAAG AGGCTGCACC TTAATTTTTC TTGTCTGTGT GCAGGTCTTC ATATAAATTT TACCAGGAAG AAGGGTCTGA GTTTGTGTGT
 8290 * 8300 * 8310 * 8320 * 8330 * 8340 * 8350 * 8360 * 8370 *
 TTTCTGTATA TGGGCTGTGT CAGTGTAAAG TTTATCTCTT GATAGCTAG TTAATATGAC CCTTCCCTACT TTTTAAAC CAGAAAAGG
 8380 * 8390 * 8400 * 8410 * 8420 * 8430 * 8440 * 8450 * 8460 *
 TTTGGAATGT TGAATGACC AAGAGACAAG TTAATCTGTG CAAGAGCCAG TTACCCACC ACAGGTCCCT CTAATCTCTG CCAAGCATTC

FIG. 17 CONT'D

8470 * 8480 * 8490 * 8500 * 8510 * 8520 * 8530 * 8540 * 8550 *
CATTGACTGC CTGTATGGAA CACATTTGTC CCAGATCTGA GCATCTAGG CCGTTTCAC TCACTCACC AGCATATGAA ACTAGTCTTA
8560 * 8570 * 8580 * 8590 * 8600 * 8610 * 8620 * 8630 * 8640 *
ACTGTGAGC CTTTCCTTTC ATATCCACAG AAGACACTGT CTCAAATGTT GTACCCCTGC CATTTAGGAC TGRACCTTCC TTAGCCCAAG
8650 * 8660 * 8670 * 8680 * 8690 * 8700 * 8710 * 8720 * 8730 *
GGACCCAGTG ACAGTTGTCT TCGGTTGTC AGATGATCAG TCCTACTGA TTATCTTGT GCTTAAAGGC CTGCTCACCA ATCTTTCTTT
8740 * 8750 * 8760 * 8770 * 8780 * 8790 * 8800 * 8810 * 8820 *
CACACCGTGT GGTCGGTGT ACTGGTATAC CCAGTATGTT CTCACCTGAAG ACATGGACTT TATATGTCA AGTCAGGAA TTGGAAGTT
8830 * 8840 * 8850 * 8860 * 8870 * 8880 * 8890 * 8900 * 8910 *
GGACTTGTCT TCTATGATCC AAAACAGCCC TATAAGAAG TTGGAAGAAG AGGAACATA TAGCAGCCTT TGCTATTTTC TGCTACCAT
8920 * 8930 * 8940 * 8950 * 8960 * 8970 * 8980 * 8990 * 9000 *
TCCTTTTCTC TGAAGCGGCC ATGACATTC CTTTGGCAAC TTAGGTGAA ACTACACAGA ACATTTTCTT TTCTTAGAGT CACCTTTTAG
9010 * 9020 * 9030 * 9040 * 9050 * 9060 * 9070 * 9080 * 9090 *
ATGATAATGG ACAACTATAG ACTTGCTCAT TGTTCAGCT GATTGCCCT CACCTGAATC CACTCTCTGT ATTCAATGCTC TTGGCAATTT
9100 * 9110 * 9120 * 9130 * 9140 * 9150 * 9160 * 9170 * 9180 *
CTTTGACTTT CTTTAAAGG CAGAACATT TTAGTTAAT GTAGATAAG AATAGTTTC TTCTCTCTCT CCTTGGGCCA GTTAATAATT
9190 * 9200 * 9210 * 9220 * 9230 * 9240 * 9250 * 9260 * 9270 *
GGTCCATGC TACACTGCA CTTCCGTCCA GTGCTGTGAT GGCATGACA CCTGCAAAAT AGTTCTGCTC TGGGCAATTT GTAGATATTA
9280 * 9290 * 9300 * 9310 * 9320 * 9330 * 9340 * 9350 * 9360 *
ACAGGTGAAT TCCCGACTCT TTGTGTTGA ATGACAGTTC TCATTCTTC TATGCTGCA AGTATGATC AGTGCCTCCC ACTTACCTGA
9370 * 9380 * 9390 * 9400 * 9410 * 9420 * 9430 * 9440 * 9450 *
TTTGCTGTC GTTGGGCCCA TATGGAACC CTGGTGTCT GTTGGATAA TAGTTTACAA ATGGTTTTTT CAGTCCCTATC CAAATTTATT
9460 * 9470 * 9480 * 9490 * 9500 * 9510 * 9520 * 9530 * 9540 *

FIG. 17 CONT'D

| | | | | | | | | |
|------------|-------------|-----------|-------------|------------|------------|-------------|-------------|-------------|
| GAACCAACAA | AAATAATATAC | TCTGCCCCG | AGATAAGCAG | ATTAAGTTG | TTCATTCTCT | GCTTTATTTCT | CTCCATGTGG | CAACATTTCTG |
| 9550 | 9560 | 9570 | 9580 | 9590 | 9600 | 9610 | 9620 | 9630 |
| TCAGCCCTCT | TCATAGTGTG | CAACATTTT | ATCATTTCTAA | ATGGTGACTC | TCTGCCCTTG | GACCCATTTA | TTAATTCACAG | ATGGGAGAA |
| 9640 | 9650 | 9660 | 9670 | 9680 | 9690 | 9700 | 9710 | 9720 |
| CCTATCTGCA | TGGACCCCTCA | CCATCTCTG | TGCAGCACAC | ACAGTGCAGG | GAGCCAGTGG | CGATGGCGAT | GACTTTCTTC | CCCTGGGAAT |

TCC